(ADDENDUM) SUBMISSION TO THE

NUNAVUT WILDLIFE MANAGEMENT BOARD AND NUNAVIK MARINE REGION WILDLIFE BOARD

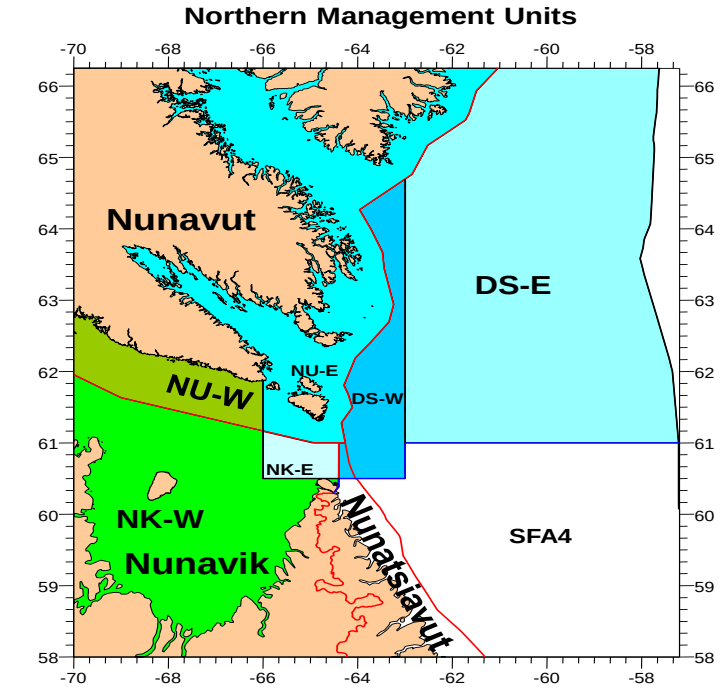
FOR

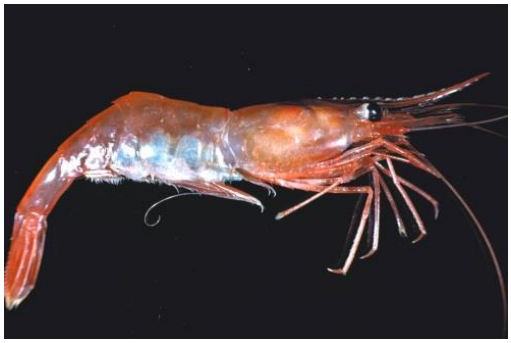
Information: **Decision: X** **Recommendation: X**

Issue: Total Allowable Catch levels for Northern (*Pandalus borealis*) and Striped (*Pandalus montagui*) Shrimp for the 2021-22 season in the Western and Eastern Assessment Zones

Map:

Blue areas – Eastern Assessment Zone
Green areas – Western Assessment Zone





Northern shrimp (*Pandalus borealis*)

Striped shrimp (*Pandalus montagui*)

Background

Fisheries and Oceans Canada (DFO) submitted a briefing note to the Nunavut Wildlife Management Board (NWMB) and the Nunavik Marine Region Wildlife Board (NMRWB) (the Boards) in February 2021 as a placeholder for their joint decisions and recommendations on 2021-22 Total Allowable Catch (TAC) and harvest levels for two species of shrimp in the Western Assessment Zone (WAZ) and Eastern Assessment Zone (EAZ).

Science results from the 2020 DFO-Northern Shrimp Research Foundation multi species survey that would inform decision making were not available at the time of submission. Results of the Canadian Science Advisory Secretariat (CSAS) zonal peer review from the week of February 22, 2021, are now available and are being submitted through this addendum (Appendix 1; Appendix 2).

This addendum 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 WAZ and EAZ. Recognizing that fishing may begin in these areas as early as May 2021, advice is requested as soon as possible.

A meeting of the Northern Shrimp Advisory Committee will occur on March 9, 2021. A summary of these consultations as they relate to the EAZ will be provided to the Boards by March 17, 2021.

WESTERN ASSESMENT ZONE (WAZ)

Fishery Profile

The fishery for *P. borealis* and *P. montagui* in the WAZ operates April 1 – March 31. Harvesting activity typically commences in May/June, subject to ice conditions.

The WAZ is divided into two management units, Nunavut West (NU-W) and Nunavik West (NK-W) (see map). These management units are located entirely within the Nunavut Settlement Area (NSA) and Nunavik Marine Region (NMR), respectively. The NWMB and NMRWB make decisions on management measures within their respective land claims areas and may make recommendations for adjacent management units. Notably, decisions have been given priority over recommendations in the event they are not aligned.

P. borealis and *P. montagui* allocations in the NU-W management unit have been allocated to Nunavut fishing interests. Similarly, allocations in the NK-W management unit have been allocated to Nunavik fishing interests. Although no formal sharing arrangement exists, harvest level decisions in NU-W and NK-W have historically resulted in equal distribution of the overall TAC for each species. In a practice initially recommended by the Boards and accepted by the Minister in 2013 (Appendix 3), these allocations have been permitted for harvest in either management unit regardless of land claim boundaries. DFO has requested that the Boards re-affirm this permission for reciprocal access between NU/NK-W.

A quota and catch history profile for the fishery in the WAZ is provided at Appendix 4.

Precautionary Approach Framework

Work is underway on the development of a draft Precautionary Approach (PA) framework for *P. borealis* and *P. montagui* in the WAZ. Status of this work has been outlined in greater detail to the Boards under separate cover.

Through a Canadian Science Advisory Secretariat (CSAS) peer-review process in May 2020, DFO Science established a Limit Reference Points (LRP) for each stock at 40% of the geometric mean of the Spawning Stock Biomass (SSB) index for the available time series, an increase from 30%. DFO Science also proposed an Upper Stock Reference (USR) point for each stock at 80% of the geometric mean of the SSB index. Through a series of working group sessions from November 2020 to February 2021, the Northern Precautionary Approach Working Group (NPAWG) has since considered a potential USR at 70% of the geometric mean of the SSB index for each stock[1].

[1] LRPs are considered established and are not subject to Board decisions or recommendations. USRs require Board decisions and recommendations (as appropriate) prior to being established. Use of the USR is for illustrative purposes for consideration in 2021-22 TAC decisions.

Relative to the established LRP and USR considered by the NPAWG, both *P. borealis* and *P. montagui* stocks would be situated in the Healthy Zone of a draft PA Framework.

Harvest Decision Rules (HDRs) that could prescribe harvest rates and other management procedures in each the Healthy, Cautious and Critical Zones are currently under development by the NPAWG. HDRs in the context of a PA Framework are not yet available.

Science Advice

Seven data points are now available in a new time series for the WAZ that began in 2014. *P. borealis* and *P. montagui* stocks have shown signs of high volatility, with no clear indication of mechanisms driving year-to-year fluctuations in biomass. Currently, DFO Science cannot detect trends for either stock at this time.

For ***P. borealis***, the 2020 survey indicates a Fishable Biomass (FB) increase of 61.1% from the 2019 survey, following a slight decline the year prior (-3.4%). The Spawning Stock Biomass (SSB) increased by 48.2% from the previous year's survey (Appendix 1; Appendix 2).

For ***P. montagui***, the 2020 survey indicates a FB decrease of 20.8% from the 2019 survey, following a decline the year prior (-19.5%). The SSB declined by 7.8% from the previous year's survey (Appendix 1; Appendix 2).

2021-22 Management Considerations

Although a PA Framework has not been fully established, both stocks would be situated in the Healthy Zone relative to the established LRPs and USRs considered by the NPAWG.

For ***P. borealis***, a rollover of the current TAC in 2021-22 would result in an ER of 9.6%. Maintaining the 15.5% ER in 2021-22 would result in a TAC of 5,089t (an increase of 1,926t or approximately 61%). Scenarios are illustrated below.

Scenario	TAC	ER	% change in TAC from previous year
Rollover TAC	3,163t	9.6%	0%
Maintain ER	5,089t	15.5%	61%
15% TAC increase	3,637t	11.1%	15%

For ***P. montagui***, a rollover the current TAC in 2021-22 would result in an ER of 23.5% (notably, outside the range of past ERs observed for this stock). Maintaining the 18.6% ER in 2021-22 would result in a TAC of 9,469t (a decrease of 2,506t or approximately 21%). Scenarios are illustrated below.

Scenario	TAC	ER	% change in TAC from previous year
Rollover TAC	11,975t	23.5%	0%
Maintain ER	9,469t	18.6%	-21%
15% TAC decrease	10,179t	20%	-15%

Recommendation: No HDRs currently exist for stocks in the WAZ. HDRs may be proposed in future, pending outcomes of NPAWG discussions.

The Department maintains its view from 2020-21 that the Boards could continue to establish an overall TAC (combined for NU-W and NK-W) with ER that falls within the range where the stock has shown an ability to recover; 7.3% - 19.8% for *P. borealis;* 8.0% - 19.3% for *P. montagui*.

Summary of Request

Western Assessment Zone:

1. Decisions on harvest levels for *P. borealis* and *P. montagui* in the NU-W (within the NSA) and NK-W (within the NMR) management units, respectively.

2. Recommendations on the overall TAC for *P. borealis* and *P. montagui* in the WAZ.

Management Measures:

1. Recommendation to continue the practice whereby *P. borealis* and *P. montagui* allocations in NU-W and NK-W may be harvested in either management unit, regardless of land claim boundaries.

Table 2. Summary of requested decisions and recommendations, WAZ.

Area (Management Unit)	***P. borealis***	***P. montagui***
NSA (NU W)	Harvest level decision NWMB *(Recommendation NMRWB)*	Harvest level decision NWMB *(Recommendation NMRWB)*
NMR (NK W)	Harvest level decision NMRWB *(Recommendation NWMB)*	Harvest level decision NMRWB *(Recommendation NWMB)*
TOTAL (WAZ)	*TAC recommendation (combined total of decisions) NWMB and NMRWB*	*TAC recommendation (combined total of decisions) NWMB and NMRWB*

EASTERN ASSESMENT ZONE (EAZ)

Fishery Profile

The fishery for *P. borealis* and *P. montagui* in the EAZ operates April 1 – March 31. Harvesting activity typically commences in May/June, subject to ice conditions.

The EAZ is divided into four management units, Nunavut East (NU-E), Nunavik East (NK-E), Davis Strait West (DSW) and Davis Strait East (DSE) (see map). These management units are located partially within and adjacent to the NSA and NMR, respectively. The NWMB and NMRWB make decisions on management measures within their respective land claims areas and may make recommendations for the adjacent Davis Strait management units. Notably, decisions have been given priority over recommendations in the event they are not aligned.

P. borealis and *P. montagui* allocations in the NU-E management unit have been allocated to Nunavut fishing interests. Similarly, allocations in the NK-E management unit have been allocated to Nunavik fishing interests. No formal sharing arrangement exists to prescribe distribution of allocations between NU-E and NK-E. In a practice initially recommended by the Boards and accepted by the Minister in 2013 (Appendix 3), these allocations have been permitted for harvest in either management unit regardless of land claim boundaries. DFO has requested that the Boards re-affirm this permission for reciprocal access between NU/NK-E.

Allocations in the Davis Strait management units have been allocated to Nunavut and Nunavik fishing interests, as well as to the offshore fleet. *P. montagui* is a bycatch species in Davis Strait. A quota and catch history profile for the fishery in the EAZ is provided at Appendix 4.

Precautionary Approach Framework

A PA Framework currently exists for *P. borealis* and *P. montagui* in the EAZ and work is underway to update this framework. In May 2020, DFO Science analysed the available longer data series and updated the LRP for each stock to 40% of the geometric mean of the SSB index for the available time series, an increase from 30%. DFO Science also proposed an updated USR for each stocks at 80% of the geometric mean of the SSB index. The NPAWG has since considered an updated USR at 70 of the geometric mean of the SSB index for each stock[2].

[2] LRPs are considered established and are not subject to Board decisions or recommendations. USRs require Board decisions and recommendations (as appropriate) prior to being established. Use of the USR is for illustrative purposes for consideration in 2021-22 TAC decisions.

Relative to the updated LRP and USR considered by the NPAWG, both *P. borealis* and *P. montagui* stocks would be situated in the Healthy Zone of an updated PA Framework.

HDRs are currently available to inform 2021-22 TAC decisions within the existing PA Framework for EAZ stocks. However, these HDRs are currently being reviewed and potential updates being developed by the NPAWG.

Science Advice

Twelve data points are now available in the time series for the EAZ. *P. borealis* and *P. montagui* stocks have shown signs of high volatility, with no clear indication of mechanisms driving year-to-year fluctuations in biomass. DFO Science cannot detect trends for either stock at this time.

For ***P. borealis***, the 2020 survey indicates a FB decrease of -9.4% from the 2019 survey, following a significant increase the year prior (102.9%). The SSB increased by 5.9% from the previous year's survey (Appendix 1; Appendix 2).

For ***P. montagui***, the 2020 survey indicates a significant FB increase of 121.1% from the 2019 survey, following a decline the year prior (-59.3%). The SSB increased by 227% from the previous year's survey (Appendix 1; Appendix 2). The FB of *P. montagui* has fluctuated precipitously every year since 2012, and the status of this resource is uncertain.

2021-22 Management Considerations

Both *P. borealis* and *P. montagui* stocks would be situated in the Healthy Zone relative to established LRPs and USRs considered by the NPAWG. Existing HDRs for stocks in the Healthy Zone prescribe ERs well above the base target ER of 15%, and changes in the TAC should generally not exceed 15% of the previous TAC.

For ***P. borealis***, it was observed that the 2020-21 TAC for *P. borealis* (10,653t) was the result of applying a 15% exploitation rate to a two-year average of the most recent fishable biomass indices. A rollover of the current TAC in 2021-22 would result in an ER of 12.4%. Maintaining the 11.2% ER in 2021-22 would result in a TAC of 9,656t (a decrease of 997t or approximately 9%). A 15% ER would result in a TAC of 12,932t (+21.4%). Scenarios are illustrated below.

Scenario	TAC	ER	% change in TAC from previous year
Rollover TAC	10,653t	12.4%	0%
Maintain ER	9,656t	11.2%	-9%
15% TAC increase	12,250t	14.2%	15%

The TAC for ***P. montagui*** has been 840t since 2014. A rollover the current TAC in 2021-22 would result in an ER of 4.5%. Maintaining the 9.9% ER in 2021-22 would result in a TAC of 1,861t (an increase of 1,021t or approximately 121%). Scenarios are illustrated below.

Scenario	TAC	ER	% change in TAC from previous year
Rollover TAC	840	4.5%	0%
Maintain ER	1,861t	9.9%	121%
15% TAC increase	966t	5.1%	15%

Recommendation:

For ***P. borealis***, an option could be to increase the TAC by 15% for 2021-22 (ER 14.2%). Where the stock remains in the Healthy Zone, the resulting exploitation rate is reasonable. This option considers that significant fluctuations in biomass indices have been observed for this stock. Significant changes in year-to-year TAC may require reductions in future.

For ***P. montagui***, an option could be to rollover the TAC at 840t for 2021-22. This option considers that significant fluctuations in biomass continue to be observed for this stock, and that the TAC has been maintained at 840t since 2014.

These recommendations do not take into account possible suggested revisions to EAZ HDRs, pending outcomes of NPAWG discussions.

Summary of Request

Eastern Assessment Zone:

1. Decisions on harvest levels for *P. borealis* and *P. montagui* in the NU E (within the NSA) and NK E (within the NMR) management units, respectively.

2. Recommendations on the distribution of the TAC for *P. borealis* between the Davis Strait management units (DS W and DS E). Recommendations on *P. borealis* allocations in Davis Strait management units.

3. Recommendations on the overall TAC for *P. borealis* and *P. montagui* in the EAZ, respectively.

Management Measures:

1. Recommendation to continue the practice whereby *P. borealis* and *P. montagui* allocations in NU E and NK E may be harvested in either management unit, regardless of land claim boundaries.

Table 3. Summary of requested decisions and recommendations, EAZ.

Area (Management Unit)	***P. borealis***	***P. montagui***
NSA (NU E)	Harvest level decision NWMB *(Recommendation NMRWB)*	Harvest level decision NWMB *(Recommendation NMRWB)*
NMR (NK E)	Harvest level decision NMRWB *(Recommendation NWMB)*	Harvest level decision NMRWB *(Recommendation NWMB)*
DS E	TAC distribution and allocation recommendation NWMB & NMRWB	TAC recommendation NWMB & NMRWB
DS W	TAC distribution and allocation recommendation NWMB & NMRWB	
TOTAL (EAZ)	*TAC Recommendation NWMB & NMRWB*	*TAC Recommendation NWMB & NMRWB*

Prepared by: Courtney D'Aoust, Fisheries Resource Management, Fisheries and Oceans Canada

Date: March 5, 2021

APPENDIX 1

SUMMARY: Assessment of Northern Shrimp, *Pandalus borealis*, and Striped Shrimp, *Pandalus montagui*, in the Eastern and Western Assessment Zones, February 2021

SUMMARY

- The assessment includes the 2019 and 2020 survey and fishery data.
- It is recognized that the population of *Pandalus montagui* spans the area of EAZ, WAZ and SFA 4. Currently it is not known what the rates of exchange (export/import) are between these zones, therefore, understanding resource dynamics as a whole requires integrating information from all assessment areas.
- It is recognized that *P. borealis* are distributed broadly over the Northwest Atlantic Ocean, including the EAZ and WAZ, and that these areas are connected through larval dispersal, but rates of exchange of adults are less understood. These linkages need to be considered to interpret dynamics within and among assessment areas.
- In the EAZ the stocks are currently assessed with updated LRPs relevant to a PA Framework. Updated USRs are currently being considered.
- In the WAZ the stocks are currently assessed with the LRPs (established *de novo* in 2020). USRs are currently being considered.

Eastern Assessment Zone – *Pandalus borealis*

- Total catch varied without trend around 6,000 t from 1997 through 2020/21. Catch statistics in 2020/21 are preliminary.
- The fishable biomass index was above the long term mean (63,486 t) and was 86,211 t in 2020.
- The female spawning stock biomass (SSB) was above the long term mean (39,659 t) and was 60,531 t in 2020.
- The reported exploitation rate index for 2020/21 was 5.9% with 48% of the TAC taken. Based on the 2020/21 TAC of 10,653 t, the potential exploitation rate index was 12.5%.
- *Pandalus borealis* stock in the EAZ is currently well above the established LRP. Although there is currently no established USR, the stock is considered in a healthy state.

Eastern Assessment Zone – *Pandalus montagui*

- Total catch in 2020/21 was 267 t, 32% of the 840 t TAC. Catch statistics in 2020/21 are preliminary.
- The fishable biomass index is subject to considerable interannual variability potentially associated with resource distribution. Since 2017, it has generally been above the long term mean (14,076 t) and was 18,803 t in 2020. Fluctuations in fishable biomass may also differ across adjacent assessment areas within the same year for this stock.
- The female spawning stock biomass (SSB) index was above the long term mean (9,675 t) and was 14,437 t in 2020.
-

- The reported exploitation rate index for 2020/21 was 1.3% with 32% of the TAC taken. Based on the 2020/21 TAC of 840 t, the potential exploitation rate index was 4.5%.
- *Pandalus montagui* stock in the EAZ is currently well above the established LRP. Although there is currently no established USR and the stock biomass index is subject to considerable interannual variability, the stock is considered in a healthy state.

Western Assessment Zone – *Pandalus borealis*

- Total catch in 2020/21 was 625 t, which is 20% of the 3,163 t TAC. Catch statistics in 2020/21 are preliminary.
- The fishable biomass index in 2020 remained above the long term mean (19,219 t) and was 32,835 t.
- The female SSB index in 2020 remained above the long term mean (10,830 t) and was 17,555 t.
- The reported exploitation rate index for 2020/21 was 1.9% with 20% of the TAC taken. Based on the 2020/21 TAC of 3,163 t, the potential exploitation rate index was 9.6%.
- *Pandalus borealis* stock in the WAZ is currently well above the established LRP. Although there is currently no established USR, the stock is considered in a healthy state.

Western Assessment Zone – *Pandalus montagui*

- Total catch in 2020/21 was 3,917 t, which is 33% of the 11,975 t TAC. Catch statistics in 2020/21 are preliminary.
- Movement across management areas is suspected to contribute to inter-annual variability in the fishable biomass index. It was below the long term mean (56,609 t) and was 50,911 t in 2020.
- The SSB index was below the long term mean (31,640 t) and was 26,811 t in 2020.
- The reported exploitation rate index for 2020/21 was 7.7% with 33% of the TAC taken. Based on the 2020/21 TAC of 11,975 t, the potential exploitation rate index was 23.5%.
- Although there is currently no established USR for Pandalus montagui stock in the WAZ, the stock is above the established LRP relevant to a PA Framework.

APPENDIX 2

Table 1. Stock status indicators for *P. borealis* and *P. montagui* in the WAZ (2019-2021).

WAZ *P. borealis*			
	2021-22	**2020-21**	**2019-20**
Total Allowable Catch (TAC) (t)	*TBD*	3,163	3,163
% Change TAC	*TBD*	0.0%	52.1%
Fishable Biomass (FB)*	32,835	20,378	21,088
Spawning Stock Biomass (SSB)*	17,555	11,845	12,884
Potential Exploitation Rate	*TBD*	15.5%	15.0%
% Change FB	61.1%	-3.4%	101.1%
% Change SSB	48.2%	-8.1%	147.0%

WAZ *P. montagui*			
	2021-22	**2020-21**	**2019-20**
Total Allowable Catch (t)	*TBD*	11,975	11,975
% Change TAC	*TBD*	0.0%	95.1%
FB*	50,911	64,268	79,835
SSB*	26,811	29,079	47,834
Potential Exploitation Rate	*TBD*	18.6%	15.0%
% Change FB*	-20.8%	-19.5%	77.7%
% Change SSB*	-7.8%	-39.2%	57.8%

**Biomass indices reflect the prior year's survey (e.g. 2021-22 indices are reflective of the Fall 2020 survey).*

Table 2. Stock status indicators for *P. borealis* and *P. montagui* in the EAZ (2019-2021).

EAZ *P. borealis*			
	2021-22	**2020-21**	**2019-20**
Total Allowable Catch (TAC) (t)	*TBD*	10,653	8,610
% Change TAC	*TBD*	23.7%	9.8%
Fishable Biomass (FB)*	86,211	95,138	46,900
Spawning Stock Biomass (SSB)*	60,531	57,143	32,842
Potential Exploitation Rate	*TBD*	11.2%	18.4%
% Change FB	-9.4%	102.9%	19.6%
% Change SSB	5.9%	74.0%	32.4%

EAZ *P. montagui*			
	2021-22	**2020-21**	**2019-20**
Total Allowable Catch (t)	*TBD*	840	840
% Change TAC	*TBD*	0.0%	0.0%
FB*	18,803	8,503	20,895
SSB*	14,437	4,415	13,806
Potential Exploitation Rate	*TBD*	9.9%	4.0%
% Change FB*	121.1%	-59.3%	-16.3%
% Change SSB*	227.0%	-68.0%	-16.5%

**Biomass indices reflect the prior year's survey (e.g. 2021-22 indices are reflective of the Fall 2020 survey).*

Minister of
Fisheries and Oceans

Ministre des
Pêches et des Océans

Ottawa, Canada K1A 0E6

JUL 0 5 2013

Mr. Manasie Audlakiak
Acting Chairperson
Nunavut Wildlife Management Board
P.O. Box 1379
Iqaluit, Nunavut
X0A 0H0

Dear Mr. Audlakiak:

Thank you for your letters of May 9 and 14, 2013 regarding the Nunavut Wildlife Management Board's decisions and recommendations on shrimp management in the Nunavut Settlement Area for *Pandalus borealis* and *Pandalus montagui*.

First I would like to commend both the Nunavut Wildlife Management Board (NWMB) and the Nunavik Marine Region Wildlife Board (NMRWB) for the collaboration and cooperation in determining final harvest level decisions for the management units within the respective settlement areas and non –quota limitation decisions for the sustainable management of the shared shrimp resource. The efforts of the NWMB and NMRWB in working towards establishing a sound management structure for the sustainable management of the shared shrimp resource in the north has been appreciated.

I note that the joint decision letter of May 14, 2013 contains both final and initial Board decisions pursuant to the land claims agreements. I also note that the NWMB has provided separately on May 9, 2013 a related decision on the management regime in the Western Assessment Zone and on May 7, 2013 its recommendations on the sub-allocation of Nunavut's share of these shrimp resources. I have addressed each of the decisions and recommendations separately herein for simplicity.

Harvest levels

I accept the modified harvest levels in the Nunavut Settlement Area for *P. montagui* (2500t) and *P.borealis* (750t) shrimp for the Nunavut West management unit which represents a 50% share of the established Total Allowable Catch for each shrimp species in the Western Assessment Zone for a three year term (2013 to 2015 inclusive).

I also accept the modified harvest levels in the Nunavut Settlement Area for *P. montagui* (805t) and *P.borealis* (200t) shrimp for Nunavut East management unit which represents a 70% share of the established quota for *P. montagui* and 80% share of the established by-catch quota for *P.borealis* for the Nunavut /Nunavik East management units for a three year term (2013 to 2015 inclusive).

.../2

Management Regime

I agree with the joint NWMB and NMRWB recommendation that, for the purpose of commercial shrimp fishing, respective shares in the Nunavut/Nunavik West and East management units are permitted to be fished in either land claims settlement area for a three year term (2013 to 2015 inclusive).

I accept the NWMB's non-quota limitation decision set out in its May 9, 2013 letter to have both P. *montagui* and *P. borealis* shrimp species managed as directed fisheries in the Western Assessment Zone for a three year term (2013 to 2015 inclusive).

With respect to the joint non-quota limitation decision for the conservation of the *P. montagui* shrimp species in the Nunavut/Nunavik East management units, I note that the NWMB has indicated that it is prepared to rescind this decision if the Department advises that this additional conservation measure is unnecessary for the conservation of the shrimp resource in the Resolution Island area. You will recall that the conservation concerns for the *P. montagui* shrimp stock in the area resulted from the old management system which allowed quotas to be fished across management units all of which could be fished near Resolution Island. The new management measures put in place along with the reduction of the Total Allowable Catch for *P. montagui* to 2250t addressed the conservation concerns to my satisfaction. However I am prepared to accept this non-quota limitation decision for the three year term if the NWMB and NMRWB deemed it necessary.

I have asked my officials to provide the NWMB and NMRWB with background information to assist the Boards in evaluating the need for this non-quota limitation.

Sub-Allocation

I appreciate the detailed information on how the NWMB determined its sub-allocation recommendations of Nunavut's share of the shrimp resources in the Nunavut East and West management units. I have given considerable deliberation to the NWMB's recommendations, along with other relevant considerations, and have decided to allocate Nunavut's share of the shrimp resources to Baffin Fisheries Coalition for the 2013 season as recommended in your letter of May 7, 2013.

I look forward to continued collaboration with the Board in the management of this important resource.

Sincerely,

Keith Ashfield

Minister of
Fisheries and Oceans

Ministre des
Pêches et des Océans

Ottawa, Canada K1A 0E6

JUL 0 5 2013

Mr. Robbie Tookalak
Acting Chairperson
Nunavik Marine Region Wildlife Board
P.O. Box 433
Inukjuak, Quebec
J1O 1M0

Dear Mr. Tookalak:

Thank you for your letter of May 14, 2013 regarding the Nunavik Marine Region Wildlife Board's decisions and recommendations on shrimp management in the Nunavik Marine Region for *Pandalus borealis* and *Pandalus montagui* and the additional considerations provided in your letter of May 21, 2013.

First I would like to commend both the Nunavik Marine Region Wildlife Board (NMRWB) and the Nunavut Wildlife Management Board (NWMB) for the collaboration and cooperation in determining final harvest level decisions for the management units within the respective settlement areas and non-quota limitation decisions for the sustainable management of the shared shrimp resource. The efforts of the NMRWB and NWMB in working towards establishing a sound management structure for the sustainable management of the shared shrimp resource in the north has been appreciated.

I note that the joint decision letter of May 14, 2013 contains both final and initial Board decisions pursuant to the land claims agreements. I also note that the NMRWB's letter of May 21, 2013 identifies a Board decision on the management regime in the Western Assessment Zone. I have addressed each of the decisions and recommendations separately herein for simplicity.

Harvest levels

I understand from your letter of May 21, 2013, that the NMRWB will determine the basic needs level and allocation of the surplus at a later date. I look forward to hearing the Board's decisions on these items subsequently.

In the meantime, I accept the Total Allowable Take levels in the Nunavik Marine Region for *P. montagui* (2500t) and *P.borealis* (750t) shrimp for the Nunavik West management unit which represents a 50% share of the established Total Allowable Catch for each shrimp species in the Western Assessment Zone for a three year term (2013 to 2015 inclusive).

.../2

I also accept the Total Allowable Take levels in the Nunavik Marine Region for *P. montagui* (345t) and *P.borealis* (50t) shrimp for Nunavik East management unit which represents a 30% share of the established quota for *P. montagui* and 20% share of the established by-catch quota for *P.borealis* for the Nunavik /Nunavut East management units for a three year term (2013 to 2015 inclusive).

Management Regime

I agree with the joint NMRWB and NWMB recommendation that, for the purpose of commercial shrimp fishing, respective shares in the Nunavut/Nunavik West and East management units are permitted to be fished in either land claims settlement area for a three year term (2013 to 2015 inclusive).

I accept the NMRWB's non-quota limitation decision set out in your May 21, 2013 letter to have both P. *montagui* and *P. borealis* shrimp species managed as directed fisheries in the Western Assessment Zone for a three year term (2013 to 2015 inclusive).

With respect to the joint non-quota limitation decision for the conservation of the *P. montagui* shrimp species in the Nunavik/Nunavut East management units, you will recall that the conservation concerns for the *P. montagui* shrimp stock in the area resulted from the old management system which allowed quotas to be fished across management units all of which could be fished near Resolution Island. The new management measures put in place along with the reduction of the Total Allowable Catch for *P. montagui* to 2250t addressed the conservation concerns to my satisfaction. However I am prepared to accept this non-quota limitation decision for the three year term if the NMRWB and NWMB deemed it necessary.

I have asked my officials to provide the NMRWB and NWMB with background information to assist the Boards in evaluating the need for this non-quota limitation.

I look forward to continued collaboration with the Board in the management of this important resource.

Sincerely,

Keith Ashfield

APPENDIX 4

		2016/17		2017/18		2018/19		2019/20		2020/21	
Species	**Management unit_Fleet/Interest**	**Quota**	**Catches**	**Quota**	**Catches**	**Quota**	**Catches**	**Quota**	**Catches**	**Quota**	**Catches *preliminary**
P. borealis	DSW_Offshore	4,813	4,852	4,813	5,009	4,013	4,576	4,737	4,511	5,250	4,917
	DSE_Offshore	1,604	848	1,604	530	802	352	802	4	1,000	0
	DSE_Nunavut	1,604	118	1,604	884	1,604	215	1,604	0	1,604	28
	DSW_Nunavut	1,084	722	1,084	928	1,084	1,055	1,084	976	1,778	1,147
	DSW_Nunavik	120	0	120	0	120	0	120	0	197	0
	NU-E_Nunavut	210	96.249	210	67	174	45	210	4	659	389
	NK- E_Nunavik	53	31.101	53	66	43	94	53	13	165	167
	TOTAL	***9,488***	***6,667***	***9,488***	***7,483***	***7,840***	***6,337***	***8,610***	***5,508***	***10,653***	***6,648***
P. montagui	NU-E_Nunavut	301	128.562	301	92	301	0	301	76	301	48
	NK-E_Nunavik	129	115.109	129	140	129	3	129	0	129	178
	DS E/W_Offshore (bycatch)	410	243	410	71	410	141	410	150	410	131
	TOTAL	***840***	***486***	***840***	***304***	***840***	***143***	***840***	***225***	***840***	***348***
P. borealis	NU-W_Nunavut	1,040	612	1,040	466	1,040	485	1,582	1,236	1,582	811
	NK-W_Nunavik	1,040	418	1,040	452	1,040	822	1,582	375	1,582	555
	TOTAL	***2,080***	***1,029***	***2,080***	***918***	***2,080***	***1,307***	***3,163***	***1,612***	***3,163***	***1,366***
P. montagui	NU-W_Nunavut	3,069	2,415	3,069	2,505	3,069	1,879	5,988	4,131	5,988	3,064
	NK-W_Nunavik	3,069	3,245	3,069	3,104	3,069	3,638	5,988	3,983	5,988	3,504
	TOTAL	***6,138***	***5,660***	***6,138***	***5,609***	***6,138***	***5,517***	***11,975***	***8,114***	***11,975***	***6,567***