

SUBMISSION TO THE
NUNAVUT WILDLIFE MANAGEMENT BOARD AND NUNAVIK MARINE
REGION WILDLIFE BOARD

FOR

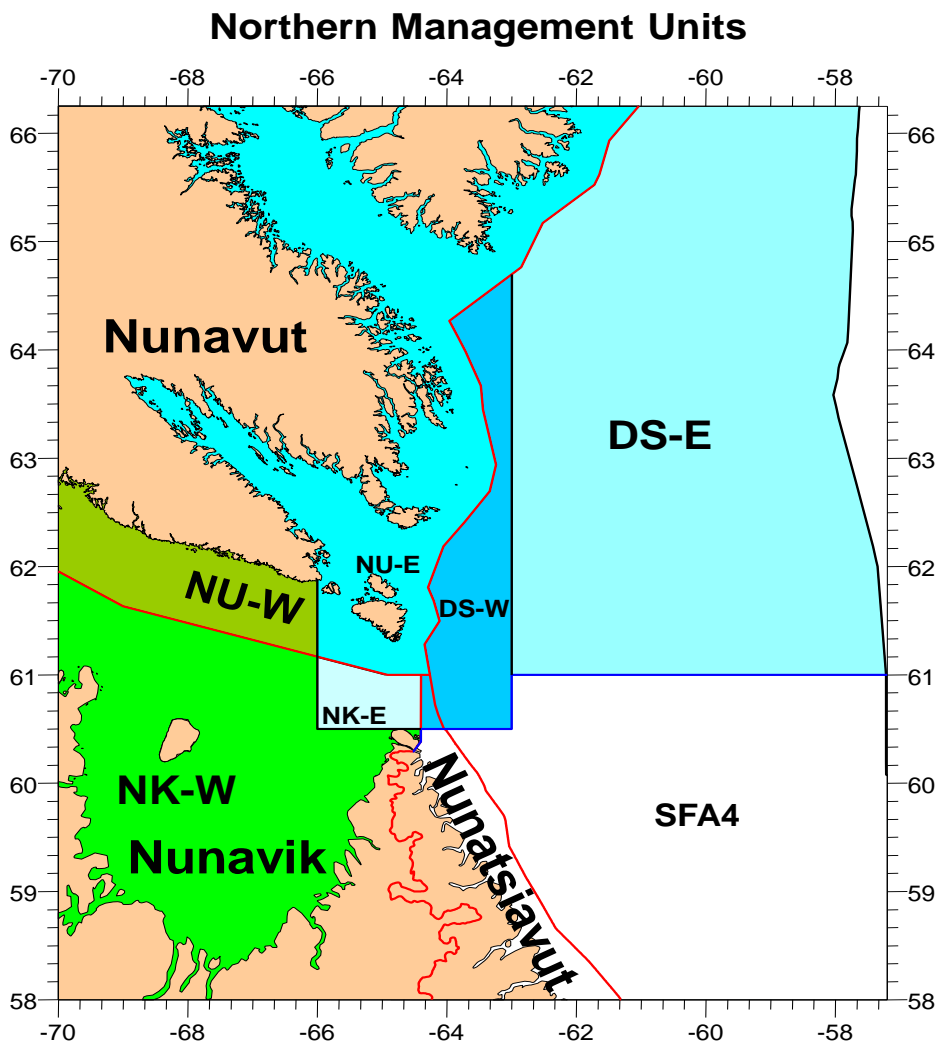
Information:

Decision: X

Recommendation: X

Issue: Method for determining Northern (*Pandalus borealis*) and Striped (*Pandalus montagui*) Shrimp Total Allowable Catch levels for the 2015/16 season

Map:



Background

Two shrimp species (*Pandalus montagui* and *Pandalus borealis*) occur in the Northern shrimp fishery that takes place in the Davis Strait and eastern Hudson Strait which includes parts of the Nunavut Settlement Area (NSA) and the Nunavik Marine Region (NMR). Total Allowable Catch (TAC) for each species is set for two distinct science assessment zones (East and West), then distributed into management units as per defined sharing arrangements.

The TAC levels for each species of shrimp need to be established for the 2015/16 season. The 2014/15 TAC levels were based on an exploitation rate (ER) of 15% in the Eastern Assessment Zone (EAZ) and 10% ER in the Western Assessment Zone (WAZ) using a two year average of the fishable biomass. The science used as a basis for considering these TACs incorporated the 2013 survey data.

Leading up to the 2014/15 season, the timing of the availability of the science advice, the meetings of the Nunavut Wildlife Management Board and the Nunavik Marine Region Wildlife Board (Boards), and timelines of decision-making processes as per respective Land Claims Agreements resulted in a significant delay (5 months) in the release of the full quotas for these fisheries. This not only impacted the availability of quota to fishery participants affecting harvest planning arrangements but resulted in additional administrative actions for the Department and harvesters to manage this fishery.

With respect to the 2015/16 season, timing of consultative and co-management processes and the availability of updated science information to inform decision making will be a consideration again this season. Science results for the 2014 survey are expected by mid to late February. Consultation with the Northern Shrimp Advisory Committee (NSAC) is planned for early March. The NWMB and NMRWB regular meetings are typically held mid-March and the opening of the shrimp fisheries is April 1.

To better position ourselves for timely decision making for the 2015/16 season and avoid delays to best degree possible, the Department is seeking decision and advice from the Boards on pre-agreed methodology on TACs for the 2015/16 fishing season in the WAZ and the EAZ, respectively.

For the two shrimp species in two assessment zones, this briefing note proposes various Options for the Boards' consideration in determining TACs for 2015/16.

Western Assessment Zone – For Decision

The WAZ falls entirely within the NSA/NMR. As agreed by the Boards and supported by affected stakeholders, a 10% ER was applied in the WAZ in 2013 and 2014 given the newness of the fishery and the limited data available from time series surveys. A map is provided. Additionally, the Minister had previously accepted the 50/50 split of the TAC between Nunavut and Nunavik up to and including 2015/16.

Beginning in 2014, the science survey in the WAZ has changed and is now being undertaken by the Northern Shrimp Research Foundation (NSRF) and the Department. As such, the vessel and gear used to complete the survey as well as the time of year of the survey has changed. As a result, the time series for this assessment zone is reset with 2014 as year one. Science advises that at least 3 – 5 reliable points on the time series are required to responsibly make any decisions to modify the TAC.

Recommendation:

Given the time series is starting over in 2014 and several survey data points are required to provide sound science advice on TAC modifications, the recommendation is to that maintain current TACs in the WAZ and the continued monitoring of the resource as the most reasonable and precautionary way forward to ensure that shrimp harvesting inside the settlement areas remain within sustainable catch levels. Considering both shrimp species in the WAZ are well within the Healthy Zone of the PA (based on 2013 biomass indices), maintaining existing TACs for the 2015/16 season is unlikely to raise any conservation concerns.

The Eastern Assessment Zone – For Recommendation

The EAZ falls both within and outside the NSA/NMR. This stock has been managed at an ER of around 15% and the TAC was reduced accordingly for the 2014/15 season.

Although a new Precautionary Approach (PA) for Northern shrimp, including harvest decision rules was presented to NSAC in January 2014 these were not adopted. As such, proposed TAC setting methodologies will likely be brought forward to NSAC for consideration for the 2015/16 season, however they are not available at this time. While a consistent TAC setting methodology is preferred for domestic SFAs, the options below represent the most probable scenarios that will be contemplated by NSAC. In any case, the Department will ensure that the scenarios below for the EAZ are presented to NSAC for its consideration.

TACs:

Option 1: Continue to use a two year average of fishable biomass (based on 2013 and 2014 survey data points), and an ER of 15%, to determine the TAC. Unless the single year 2014 biomass index is in the Critical Zone of the PA, at which point a 10% ER will apply.

Option 2: Maintain the TAC at the current levels, recognizing that should the resulting exploitation rate for each species be greater than 20% in the Healthy Zone, or 15% in the Cautious, or 10% in the Critical Zone, a reduction of TAC (to the above mentioned ER per Zone) will be necessary to ensure that harvest is sustainable. Should the 2014 biomass index fall into a lower Zone, that Zone's ER threshold will be used. Under this option, additional decisions by the NMRWB/NWMB are required before any TAC changes are applied within the NMR/NSA. To negate this need for additional consultation which could delay the opening of the fishery, the Boards could agree that respective harvest levels in the NSA/NMR would be adjusted based on the TAC outcome and current quota distribution with the offshore fleet.

Precipitous Change in Biomass

In the current PA of the Integrated Fisheries Management Plan, 2007, there is a provision that states that there will be a 15% maximum change in TAC unless the stock is declining precipitously; however, there is no definition of precipitous nor directions on how management should respond. The revised PA that was not adopted by NSAC in January 2014 quantified 'precipitous' as a change in TAC greater than 25% with further instructions that a special meeting of NSAC would be called to discuss the way forward.

Request

Considering this, the Department is seeking the Board's recommendation on:

- 1) a methodology for setting 2015/16 TACs for both species in the EAZ; and concurrence to roll over the TACs in the WAZ; and
- 2) Recommendations to continue the current sharing arrangement on the split of the pending TAC for the EAZ between the Nunavut/Nunavik East management units (combined) and the Davis Strait management Unit, i.e., the offshore fleet. Due to the approved sharing arrangement for allocations within the NSA and NMR until 2015, the only recommendation required from the Boards on sharing is with regard to the sharing of EAZ TAC levels between the offshore and the Nunavut/Nunavik East management units for the 2015/16 fishery.
- 3) The Department is seeking the views of the Boards on defining what constitutes a precipitous change in TAC, and how the TAC should be adjusted in the event of such a decrease or increase.

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