











August 30, 2022

Board Members Nunavut Wildlife Management Board PO Box 1379 Iqaluit, NU XOA OHO

Dear the Nunavut Wildlife Management Board Members:

Re: NAFO Scientific Council's advice regarding SAO +1 Greenland Halibut TAC for 2023-2024

The recent advice provided to the Department of Fisheries and Oceans Canada (DFO) from the Northwest Atlantic Fisheries Organization (NAFO) Scientific Council (SC) for Greenland Halibut (turbot) in Subareas 0+1 for the 2023-2024 fishing seasons is incredibly concerning and has prompted this joint response from the Nunavut Fisheries Association (NFA), the Government of Nunavut (GN), and Industry to communicate the concern and disagreement.

All parties strongly disagree with the recommendation from NAFO SC on the potential decrease in Total Allowable Catch (TAC) from 36,370 t to 29,640 t for SA 0+1 turbot and, therefore, a reduction in Division 0A + 0B TAC. We present the following rationale for why the TAC should remain the same in Divisions 0A + 0B:

- 1) There is no scientific justification to warrant a reduction; the current TAC was established from the previous long-term stock assessment data.
- 2) A reduction in TAC would have an adverse effect on Nunavummiut.
- 3) The NAFO Precautionary Approach (PA) was not completely adhered to when formulating the advice.

There is no scientific justification to warrant a reduction; the current TAC was established from the previous long-term stock assessment data:

NAFO SC's 2022 report and recommendation for a reduction are not supported by sound scientific rationale and evidence. The rationale given by the SC for a reduction is that the "main index for this stock has not been updated since 2017, consequently stock status is increasingly uncertain". However, there is just as much evidence to say that the stock continues to be stable.

The evidence presented in the SC report shows stock stability and minimal harvesting impacts at the current TAC, as illustrated by the following direct points taken from the 2022 report.

1. The stock likely remains healthy and well above Bum;

- All survey index values have remained above the NAFO B_{LIM} for the entire time series, including 2013-2017, where it had a time series high (2016) and near low (2017) (Figure 1). Even the low value in 2017 was within the range of survey index values (1999-2012) considered by NAFO to be a proxy for B_{MSY}. This means that the stock was considered healthy even at this low value.
- A survey with a commercial vessel was completed in 2019. While not considered directly comparable to the existing time series, it does not mean the data from 2019 does not accurately represent the stock. We want to point out that the 2019 value was in the same range as previous surveys and higher than 2017. It is within the range of the values of the years used as a proxy of B_{MSY}, providing some confidence that current harvest levels are sustainable and the stock is healthy.
- The 2023-2024 NAFO Advice even states: "Despite a lack of index survey data in recent years the <u>stock status is not expected to have changed drastically during 2018 to present</u>" [Emphasis added]. For a stock status that has not expected to have drastically changed, and for which there is no evidence that it has changed at all, it is concerning that there is a recommended drastic reduction in the overall TAC.

2. <u>With similar information available in 2020, the NAFO SC advised there was low risk of being below</u> <u>Bum if the TAC remained at 36,370 mt;</u>

- The only new information used in the 2022 assessment was fishery length frequencies to 2021, and an index of age-1 fish to 2020.
- The NAFO SC notes in the advice (SCS Doc. 22/18, P. 74) that both were stable.
- There was less data used within the 2020 report, and the recommendation was that there was low risk to the stock if the TAC remained at 36,370 mt.

3. Additionally, some Greenland inshore research shows stable trends in recent years, evidence of stock stability;

"In assessing stock status, SC considered the observed stability in length frequencies from surveys and the fishery, the age-1 index, that TACs have been consistently achieved, longevity of the species, and that status in 2017 was well above B_{lim} ." (SCS Doc. 22/18, P. 74)

- Specifically, NAFO states that from the Greenland inshore surveys, abundance in 2020 is near the series average and that the change in survey vessel occurred in 2018, but gear performance analyses concluded the surveys were comparable (SCR 20/15 P. 118).
- The NAFO SC noted it observed stability in length frequencies from surveys and the fishery, and the age-1 index of abundance. In 2020, the age-1 abundance index was near the series average and was at high levels in 2017. While it is unclear if this index is representative of recruitment, the SC has noted in the past it contributes to perception of stock status.

Given the information presented above from the NAFO SC within this report and previous reports, the current TAC of 36, 370 t for SA 0+1 falls within a low risk of the stock falling below B_{lim}. From fisheries stock assessment literature, this indicates stock stability which <u>does not</u> warrant or support any recommendation for TAC decreases.

4. The present TAC was determined sustainable from long-term stock assessment data

The present TAC of 36,370 t for SA 0+1 was determined to be of low-risk harm to the stock (well above the B_{lim} proxy) by NAFO from the previous long-standing time series analysis (2018 and 2020 stock assessment reports). In 2018, the NWMB made the recommendation to support the increases proposed by the NAFO SC, which has resulted in the current TAC. DFO accepted this recommendation and supported the conservative and cautious approach to increase incrementally over the years.

We have confidence in the previous science advice based on the long-term time series, and present TAC levels are of low risk of harm to the stock. There has been no evidence or argument brought forward to show that the past advice was wrong or needing adjustment. In contrast, the data that is available since 2018 shows stock stability.

5. There is ongoing scientific work to combine the existing survey index time series with future surveys anticipated to be ready for the 2024 stock assessment (SCR Doc.22/022, Appendix 4).

There are scientific analyses ongoing in Canada to provide science advice on methods to mitigate the impact of a change in Research Vessel on the assessment. Indications are that progresses has been made to combine the existing survey index time series with a new time series beginning in 2022. These methods are anticipated to be available for 2024 stock assessment and allow for the use the new survey data. It is possible this may allow for continued use of the survey index-based HCR already established for this stock. At minimum, in 2024 the assessment will be quantitative and informed by new data.

The available information in 2022 indicates to the NAFO SC that the stock status is not expected to have changed drastically from 2018 to present, therefore maintaining a stable overall TAC until a more quantitative assessment can be undertaken does not seem unreasonable.

With the lack of time series data collection in recent years by Canada and Greenland we must rely on the data we know to be accurate and sound; this is the scientific approach. We strongly encourage the NWMB and DFO to only consider TAC recommendations that are supported by scientific evidence and data.

Reduction in TAC would have an adverse effect on Inuit in Nunavut

The Fisheries Act Section 2.4 states that the "Minister shall consider any adverse effects that the decision may have on the rights of the Indigenous peoples of Canada recognized and affirmed by section 35 of the Constitution Act, 1982." A reduction in TAC would have an adverse effect on Inuit.

Fisheries and Oceans Canada and the Canadian Coast Guard have stated that they have a "key role in the transformation of Canada's relationship with Indigenous peoples". The reduction in TAC put forward by NAFO SC is forecasted to cause an annual loss of \$20,00,000 to Inuit-owned businesses in Nunavut.

Given the science's rule that a minimum of five years of new survey data is necessary to decide on TAC, this reduction would result in a loss of upwards of \$100,000,000 to Nunavut over the next five years. This reduction in TAC would result in a direct loss of jobs, social development, and community-level benefits. In a territory where economic opportunities are limited and investments into our sustainable resource development are in their infancy, a recommendation to reduce the TAC without any scientific justification unjustly penalizes Inuit. A robust assessment of a long-term data set on the stock was used to determine current TAC, and SC deemed it to be low-risk.

The NAFO Precautionary Approach (PA) was not completely adhered to when formulating the advice:

Canada requested the NAFO SC follow the PA. According to the NAFO PA, in the absence of the probability that current or projected biomass is below B_{LIM} , stocks should also have a B_{BUF} (FC Doc. 04/18, P. 3). According to the NAFO PA:

" B_{BUF} should be specified by managers and should satisfy the requirement that there is a very low probability that any biomass estimated to be above B_{BUF} will actually be below B_{LIM} . The more uncertain the stock assessment, the greater the buffer zone should be. In all cases, a buffer is required to signify the need for more restrictive measures." [emphasis added].

The NAFO SC should have requested management (i.e., Canada and Greenland) establish a B_{BUF} to enable adherence to the NAFO PA in the provision of the advice. Without a B_{BUF} more restrictive measures (i.e., substantial TAC reduction) are being applied without knowledge of where the stock aligned relative to the B_{BUF} during the last viable survey year or during the reference period (2013-2017) chosen for the 2023 to 2024 advice. Without an established B_{BUF} the proposed reductions are out of place as a recommendation and can be seen solely as punitive.

Conclusion

Individually and collaboratively, our organizations aim to live by the Inuit Societal Values:

- Piliriqatigiinniq (working together for a common cause),
- Inuuqatigiitsiarniq (respect for relationships and caring for one and another) and;
- Avatittinnik Kamatsiarniq (respect and care for the land, animals and environment).

As stakeholders and rights-holders in this fishery, we advocate strongly that this recommendation by the NAFO SC to reduce the TAC of turbot in Division 0A + 0B is not justified by the evidence presented and will cause undue harm to Inuit and Nunavummiut. Additionally, we want to state that if the recommendation from NAFO SC is accepted, the quota reduction suggested would represent the lowest TAC in Subarea 0 since 2013, or the lowest TAC in 10 years, despite the fact that there is no evidence of decline in the health of the stock.

We have advocated for years that the multispecies research needed to be resumed, with potential solutions offered by industry to support these efforts. Unfortunately, none of the options offered were realized. Additionally, there was assurance from DFO Science in 2019 that despite the lack of continued research, there was confidence in the past assessments and that the TAC would remain consistent. DFO

¹ https://www.nafo.int/Portals/0/PDFs/fc/2004/fcdoc04-18.pdf

Science further stated that there should be no expectation of increased TAC until a new time series was established.

In answer to your questions:

1. Given the advice from NAFO SC, what should be the TAC for NAFO Subarea 0?

The TAC for Greenland Halibut in NAFO Subarea 0 should remain at 18,185 t. As discussed above, there is no scientific evidence warranting a decrease, and a dramatic cut in quota is out of place under the precautionary framework.

2. Distribution of TAC between NAFO divisions 0A and 0B?

Distribution of TAC between NAFO divisions 0A and 0B should remain the same at 9,592.5 t in Division 0A, and 8,592.5 t in Division 0B.

3. Nunavut's share in OA and OB and why?

Nunavut's share of Division 0A turbot is 100%, and its direct share of 0B is approximately 50%, or 4,283.25 t, plus participation with licenses in the 900t competitive fishery. Nunavut's overall direct share of 0A-0B combined is 76.2%. For the last several allocation cycles, in keeping with Land Claim agreements, DFO has provided Nunavut with 100% of any 0A quota increases and 90% of any 0B quota increases (with the remaining 10% going to Nunavik).

Based on the above recommendations to maintain the overall TAC at current levels, the current sharing arrangements would be maintained. However, Nunavut interests continue to consider the territory's share of the OB quota to be inequitable and not in line with adjacency and Indigenous reconciliation considerations.

We appreciate that the NWMB Board Members will meaningfully and fairly consider all the points we brought forward when considering your recommendation. We wish you luck in your deliberation and trust you have all the information you need.

Sincerely,

CDM 4907"

David Akeeagok, Minister of Economic Development and Transportation, Government of Nunavut
Chair of Arctic Fishery Alliance
Chair of Baffin Fisheries
Chair of Cumberland Sound Fisheries Limited
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Annex 1:

Figure 1. Greenland halibut in NAFO Subarea 0+1 (offshore) catches and TAC (top left panel), survey biomass indices (top right panel), combined survey biomass index and B_{lim} (bottom left panel) and abundance at age 1 index (bottom right panel). Modified from figure included in NAFO SCS Doc. 22/18 (page 75).

