



Monday, March 19, 2012

The Honorable Keith Ashfield, M.P.
Minister of Fisheries and Oceans
200 Kent Street
Ottawa, Ontario
K1A 0E6

Re: Torngat Joint Fisheries Board 2012 Recommendations on Snow Crab Co-Management In and Adjacent to Nunatsiavut

Dear Minister Ashfield:

We are pleased to attach the Torngat Joint Fisheries Board's 2012 recommendations on snow crab co-management in and adjacent to Nunatsiavut. These recommendations are made pursuant to Parts 13.11.1 (a) and (b) and 13.11.2 (a), (b) and (c) of the Labrador Inuit Land Claims Agreement, in partial fulfillment of the Board's core mandate.

In 2010 and 2011 the Board recommended a number of items which were accepted and implemented, and a number which were not. This year's recommendation reflects our current understanding of the resource, the social-economic context, and discussions with fishers, processors and managers at the third Snow Crab Workshop held in Nain in November of 2011.

First and foremost, we recognize apparent declines in the resource, particularly in 2H. However, we are concerned that the indicators of resource status are deficient and highly uncertain. The attached recommendation will outline a plan to conserve the resource, while allowing the flexibility to develop more accurate understandings of it. A lack of certainty should not be used to justify inaction if there is a threat of serious or irreversible harm, but nor should we accept a lack of certainty without devising strategies to address it.

We therefore recommend: 1) that Crab Management Areas 2J North and 2H South be merged into a single unit to distribute effort over a larger area; 2) that the quota in the new area be decreased by 15%, and; 3) that the 100 MT exploratory quota be eligible, through a permitting system, to all areas outside of known concentrations.

Thank you for considering our recommendations and we are available at your convenience to discuss this file in detail.



Yours truly,

John Mercer
Chairman
Torngat Joint Fisheries Board



Torngat Joint Fisheries Board

**Memorandum to the Minister of Fisheries and Oceans
Snow Crab Co-Management in and Adjacent to Nunatsiavut
(March 19, 2012)**

Issue: Management of the Snow Crab Fishery in the Labrador Inuit Settlement Area, and Waters Adjacent.

Recommendations:

- 1) Merge Crab Management Areas (CMA) 2H South and 2J North into a single management area;
- 2) Reduce the 432 MT quota in the combined area by 15%;
- 3) Manage the 100 MT exploratory quota in 2H North, through a permitting system and fishing plans, in all areas north of 54°40 N and outside areas of known concentrations.

1. Background:

- Parts 13.10 and 13.11 of the 2005 Labrador Inuit Land Claims Agreement ('LILCA') establish the Torngat Joint Fisheries Board ('TJFB' or the 'Board') as the primary body advising the responsible Minister on the conservation and management of aquatic plants, fish, fish habitat, and fisheries (other than the Inuit domestic fishery) in the Labrador Inuit Settlement Area, with advisory powers in waters adjacent. Crab Management Areas 2H and 2J North straddle the boundary of the Labrador Inuit Settlement Area, and are therefore both within and immediately adjacent to it.
- On 14 May, 2010, the Board recommended: 1) that the 2009 combined quota of 462 MT in 2H North and 2J South be maintained; 2) that the 100 MT quota in 2H North be strictly exploratory, and ineligible for transfer to the south, and; 3) that CMAs 2H South and 2J North be merged into a single unit. The recommendations were based on consensus recommendations of participants at the 2010 Snow Crab Workshop, and the best available scientific and fishery information.
- The Ministerial response, dated 28 June, 2010, noted that the Board recommendation was received too late for implementation in 2011.
- On 18 April, 2011, the Board recommended: 1) that the 462 MT quota be maintained; 2) that the 100 MT quota in 2H North be strictly exploratory, and ineligible for transfer to the south; 3) that the northern boundary of 2H South be extended ten nautical miles northward; 4) that CMAs 2H South and 2J North be merged into a single unit, and; 5) that science be conducted annually and in relation to the new unit. The recommendations were based on fisheries management

theory, the best available information, and consensus recommendations from the second annual Snow Crab Workshop.

- The Ministerial response dated 18 July, 2011, noted a 30 MT quota decrease in 2H. The recommendation to merge 2J North and 2H South was rejected, but the northern boundary of 2H South was extended northwards and the 100 MT quota in 2H North was agreed to be strictly exploratory.

2. Resource Status:

- In 2011 there was a 70 MT quota in 2H South – of that, 11 MT was landed in 10 trips. Logbook and VMS catch per unit effort data indicate a decline in 2H since 2006, but in 2011 only three logbooks were returned and effort throughout 2H was low (10 trips total) and concentrated in one small area. The Board discussed logbook returns at length, and the lack of compliance and enforcement is concerning. Logbook return rates need not be an additional source of uncertainty. Catch per unit effort data is a poor proxy measure of biomass in 2H, however, biomass and recruitment indices derived from the post-season trawl survey also indicate a decline. The 2011 exploitable biomass index was below that of 2010, and well below a high in 2006 (94%). The pre-recruit biomass estimate is zero. Despite a great deal of uncertainty, all of the indicators agree and suggest a decline in 2H.
- In 2J North the 362 MT quota was landed, but effort was up and catch per unit effort was down. Catch per unit effort, derived from logbooks, decreased to 4.6 kg/trap from 7.6 in 2010 and a high of 9.7 in 2008. The exploitable biomass estimate changed little from 2010 to 2011, while the pre-recruit estimate increased over the same period. Across the entirety of 2J, landings, catch per unit effort, and exploitable biomass indices have decreased, while the pre-recruit index has fluctuated without trend. Data is collected, analyzed, and presented for all of 2J, and data for 2J North has not been entirely disaggregated.
- Correlations between ocean temperature and snow crab production suggest that recruitment prospects over the next several years may be poor (Colbourne and others, 2011). Increasingly, ecological drivers are coming to be understood as a key determinant of snow crab abundance, but the pathways between multiple causes and multiple effects are complex and uncertain. Likewise, the cumulative effects of shifts in the composition of the biological community are uncertain.

3. Workshops and Consultations:

- The Board held Snow Crab Workshops in Upper Lake Melville in March of 2010, in Makkovik in February of 2011, and in Nain in November of 2011. Each of the workshops brought together industry stakeholders, governmental managers, and researchers in practical discussions to develop consensus understandings. In November there was a great deal of discussion about poor fishery, biomass, and recruitment indicators in 2H North, and concern that removing the line would shift pressure to 2J North. However, participants did not consider effort in 2H sufficient to detect trends in biomass, and noted also that in the past extremely poor years



have been followed by extremely good years. There was considerable discussion as to whether the poor indicators are accurate, and if they are, whether they reflect an anomaly or a true trend, and whether they are representative of the entire region or just a portion of it.

4. Crab Management Areas:

- In 2010 and 2011 the Board recommended that the boundary between 2J North and 2H South be removed, and that the quota be combined for a total of 462 MT. This recommendation was made as a conservation initiative, as a larger management unit would theoretically distribute catch and effort over a larger area. At the same time, we acknowledged the alternative – that a merger might increase effort in particularly productive areas and encourage sequential exploitation across a larger area. In 2010 the resource status was such that the Board deemed the potential benefits of a merger to outweigh the risks. Since 2010 the resource status appears to have deteriorated further, and the Board does not consider the risks of a merger acceptable without decreasing the quota for the merged area.

5. Regular Quota

- The Board has acknowledged a great deal of uncertainty with respect to fishery performance and survey indicators in 2H South and 2J North, but the weight of evidence suggests a decline, particularly in 2H. Therefore, merging areas 2H South and 2J North in this context is likely to shift pressure to 2J North. The Board recommends that the combined quota of 432 MT in the new area be reduced by 15% to 367 MT.

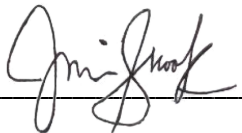
6. Exploratory Quotas, Uncertainty, and Continuing Research

- The Board has recommended a quota decrease in a combined management unit comprised of 2J North and 2H South. Nevertheless, the Board has recognized data deficiencies and sources of uncertainty that require redress. To that end, we reaffirm our previous recommendation that trawl surveys be conducted in the new management area annually, as they are in other areas, and that the resulting data be presented in relation to the new management unit.
- We further recommend that the 100 MT exploratory quota which is currently exclusive to 2H North be opened to exploration in all areas north of 54°40' *outside* of known areas of concentration. The determination of which areas are eligible should be made on a case-by-case basis through a permitting system and the submission of fishing plans. With the acknowledged complexity and uncertainty inherent to conventional research methodologies, exploratory fisheries are an important and cost-effective means of increasing our understandings of the resource.



Prepared by: Torngat Wildlife, Plants and Fisheries Secretariat

Approved by: _____ Chairman

Approved by:  _____ Executive Director



References:

Colbourne, E., Craig, J., Fitzpatrick, C., Senciall, D., Stead, P., and W. Bailey. 2011. Climate Conditions in the NW Atlantic in 2011. Fisheries and Oceans, Canada. Biophysical and Oceanography. Newfoundland and Labrador.