

# Review of: "Biological perspectives on complexities of fisheries co-management: A case study of Newfoundland and Labrador snow crab"

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**Indigenous erasure is not a pathway toward successful snow crab co-management in Newfoundland and Labrador**

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Mullowney et al. 2020<sup>[1]</sup> state there is little-to-no evidence that co-management has positive benefits for species abundance and sustainability. Using a case study of the Newfoundland and Labrador (NL) snow crab fishery as their context, the authors argue that the NL snow crab management system is promoting problematic processes that prevent the best possible scientific advice. This perspective is problematic because Mullowney et al: 1) erase the presence of an already-functioning Indigenous co-management system in NL and Inuit rights related to fisheries management by omitting mention of it in the article; and 2) rely on a predominately biological sciences perspective, missing key opportunities from Indigenous and social sciences<sup>[2]</sup> to inform not only science on the snow crab fishery, but on fisheries sciences generally.

First, Mullowney et al. failed to accurately and adequately define the snow crab co-management system in Newfoundland and Labrador and, in particular, did not acknowledge or mention the presence of the Torngat Joint Fisheries Board, emergent from the Labrador Inuit Land Claim Agreement. The Torngat Joint Fisheries Board co-management structure is constitutionally protected and has been in place since 2005<sup>[3]</sup>, bringing together representatives from the Nunatsiavut Government and the provincial and federal governments. Inuit from Nunatsiavut spent over 50 years negotiating their land claim and self-government agreement, including the provisions for the co-management of snow crab<sup>[4]</sup>.

The snow crab (*Chionoecetes opilio*), known as Putjoti in Inuktitut<sup>[5]</sup>, is an important livelihood resource in the Labrador Inuit Settlement Area. Labrador Inuit harvest snow crab in NAFO areas 2HJ and these crabs are processed within the Inuit community of Makkovik. Over the most recent five-year period between 2015-2020, the average landed value to the

plant in Makkovik was \$525,137. The Nunatsiavut Government designated eight Inuit to fish a communal allocation from the DFO in 2020, and there were 79 individuals employed this season on a full and part time basis in connection with the crab plant operations. This is a major economic contributor for a community of 317, and brings much-needed resources to the region, as well as providing evidence of the importance of access to marine resources for Indigenous Peoples in NL, as well as throughout the country<sup>[6]</sup>.

Understanding the major contributions of the snow crab fishery to Labrador Inuit lives and communities, and as part of the co-management system that is well defined in Chapter 13 of the constitutionally protected Labrador Inuit Land Claim Agreement, the Torngat Joint Fisheries Board has conducted a number of initiatives over the past decade ranging from annual snow crab harvester workshops, stewardship and education initiatives, scientific collaboration with DFO on a post-season trap survey in area 2H since 2013, and formal yearly recommendations to the Minister of Fisheries and Oceans since 2010. A combination of all these co-management activities in Nunatsiavut has built trust, created a strong evidence base, and developed further initiatives, such as the Nunatsiavut Government recognizing the vulnerability of the snow crab resource and voluntarily held back 15% of their communal quota for six years, as well as withholding an additional 100 metric tonnes of exploratory quota that could have been sought. These voluntary actions, led by the Nunatsiavut Government and the Torngat Joint Fisheries Board, illustrate what can happen when there is quality co-management dialogue and processes.

Clearly, the Torngat Joint Fisheries Board co-management structure is an important component of the fisheries decision-making process in NL, and its absence in this article is noticeable. Furthermore, one of the most common forms of co-management systems in Canada are Indigenous land claims based co-management boards<sup>[7]</sup>. These co-management boards form a strong network throughout the country, providing strong and sound advice based on a complex combination of Indigenous knowledge, lived experiences, and western social and natural sciences<sup>[8]</sup>. By erasing the presence of the only Indigenous co-management board in the province, the authors do a disservice to their article and to fisheries science.

Mullowney et al. go on to argue that the snow crab resource is not fully co-managed because the Federal Government maintains exclusive decision-making power. While it is true that the Minister of Fisheries and Oceans maintains final decision-making authority over access and allotment across the country, statements and framing of co-management, such as found in this article, dismiss the essential work of co-management boards in Canada to influence these decisions<sup>[9]</sup> and to contribute much-needed and diverse knowledges and sciences to the decision-making process.

Interestingly, the authors discuss the 2019 Integrated Snow Crab Management Plan that purports to promote a co-management approach, as the plan was created after consultation with harvesters, managers, and scientists; yet, it is important to note that consultative processes and related documents are not akin to Indigenous co-management systems, which are constitutionally protected and have clearly defined roles, responsibilities, and processes, including contributing to and influencing decision-making<sup>[10]</sup>. The authors indicate that what was incorporated into the final 2019 Integrated Snow Crab Management Plan from these consultations were 'opinions' and 'concerns', overtly privileging western science over other types of sciences and knowledges, and relegating harvester knowledge to mere opinions and concerns. The authors repeatedly emphasize that the Department of Fisheries and Oceans maintains exclusive decision-making

authority, with no formal obligation to follow recommendations on any given issue. The emphasis on this caveat contradicts the framing of the 2019 Snow Crab Integrated Fish Management Plan as ‘co-managed’, and does not give any impression of shared responsibility and decision-making among the rightsholders and stakeholders of the snow crab fishery. Intriguingly, one of the fish management strategies listed in the 2019 Snow Crab Integrated Fish Management Plan, but not mentioned by Mullaney et al. is to “fulfill obligations with respect to fishery resources as defined in the Nunatsiavut Land Claims Agreement”<sup>[11]</sup>.

Finally, this privileging of biological science over other forms of science and ways of knowing calls into question the robustness of snow crab science in the province, and is both an ideological and institutional barrier moving forward<sup>[12]</sup>.

From my experience working with a co-management board which conducts diverse research to support both Inuit and fish stocks, I argue there would be substantial knowledge contributions made by the snow crab harvesters on topics such as biomass abundance, spatial scales, and fishery opening and closures, which are essential complements to the biomass survey tool. This incorporation of multiple forms of Indigenous, traditional, local, and social sciences into the DFO snow crab science program has the potential to reorient the biological perspectives of fisheries scientists and shift away from an adversarial knowledge exchange each season and potentially to an opportunity for true co-management partnerships and agreements that collaborate on the co-production of new knowledge. With that said, DFO science is heavily weighted by biological perspectives, and recent authors<sup>[13]</sup> have highlighted “a dearth of in-house capacity for social and economic aspects” within DFO, which further illustrates the need for co-management expertise, partnerships with academia, and a reallocation of DFO scientific disciplines.

The status of the snow crab resource has continually worsened in the last several years<sup>[14]</sup>, with the stock of snow crab declining since the early 2000s, and the outlook on the stock is uncertain for all, including Inuit. A successfully co-managed snow crab fishery in Newfoundland and Labrador is in need of new knowledge that is co-produced<sup>[15]</sup>, and that cannot happen without new approaches to fundamental relationships at the centre of co-management and an acknowledgement of the importance of this constitutionally-protected co-management system, and the related Inuit rights. Indeed, DFO purports to want to “build renewed nation-to-nation, Inuit-Crown, and government-to-government relationships with Indigenous peoples based on the recognition of rights, respect, co-operation, and partnership,” with a reconciliation strategy that highlights increasing “Indigenous involvement in the prioritizing, conduct, and communicating of science and survey activities” and co-developing “guidance for the Department on Indigenous Knowledge”<sup>[16]</sup>. Yet, articles such as Mullaney et al., authored by DFO scientists, do not reflect these reconciliation goals or values, and does a disservice to relationships between Indigenous governments and co-management boards and DFO.

## References

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