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The evolution of subsistence and commercial fisheries in the eastern Canadian Arctic

Eastern Canadian Arctic Inuit have hunted marine mammals for subsistence for over 4000 years. Historical landing estimates remain incomplete but archaeological sites suggest hunting pressure for each species varied in intensity over time depending on culture and climatic conditions. Today, marine mammals are still hunted as well as several fish and invertebrates species. Gear type has greatly changed over time as metal tools, wood, motors and explosives appeared in northern communities. This research aims to investigate the evolution of Nunavut fisheries, both subsistence and commercial, by assessing gear type, landings and quotas, species abundance, use, and conservation status. Gear type was found to be greatly influenced by climatic variations, and exchanging goods with fur traders and whalers. Landings increased over time for most species, which could be the result of Inuit population growth or gear technology development. Restrictions such as harvest quotas or seasonal and area closures were introduced in the late 20th century to comply with species conservation goals. Commercial fisheries continue to grow since the 1960s, targeting Greenland halibut and northern shrimp, and employing more Inuit each year in its fishing plants. The Inuit are interested in developing future commercial fisheries in Nunavut such as invertebrate fisheries. They further wish to increase whale harvesting quotas in order to continue traditional practices and maintain cultural identity. One challenge faced in managing Nunavut fisheries is combining the very different knowledge systems of Western science and Inuit Qaujimajatuqangit. However, collaboration is necessary in further developing Arctic fisheries knowledge and respecting the Nunavut Land Claims Agreement signed in 1993. This research is part of the SSHRC-funded Fish-WIKS partnership research grant aimed at improving fisheries governance and management in Canada.