

Morrison R.A., J.-F. Hamel & A. Mercier 2025. Exploring populations of the sea cucumber *Cucumaria frondosa* in Qikiqtait (Nunavut, Canada) using a portable submersible. *SPC Beche-de-mer Inf. Bulletin* 45:44-55 [open access] (<https://fame.spc.int/node/1970>)

In the perspective of developing commercial fisheries in the Arctic of the orange-footed sea cucumber *Cucumaria frondosa*, the populations at Outer Kataaluk, Ivittuuq Island and Puttaalalik (Qikiqtait, Nunavut) were assessed using a portable remotely operated vehicle (mini-ROV). In general, sea cucumbers were present in higher numbers at deeper depths. They seemed to prefer hard surfaces such as rocks and gravel, over soft surfaces like sand. Multiple sizes were found at every location, with the majority of sea cucumbers measuring between 6 and 10 cm in length. Some bigger individuals (15 to 20 cm) and a few smaller (under 5 cm) were found in Outer Kataaluk, where the number of sea cucumbers was higher than in the other locations, likely because more food was present in the water column. Concerning the fisheries, these results present more information about the quantity and the size of sea cucumbers inhabiting the coasts of Qikiqtait. This study also shows the importance of considering the environment and the biology of sea cucumbers when developing fisheries. As for the mini-ROV, this tool has proven to be useful in population assessments from the shore, despite some limitations.

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