Year One of Marine Fisheries Habitat Assessment onboard the FRV Ludy Pudluk in the Qikiqtani Region of Nunavut

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A multi-year research program was initiated between the Qikiqtaaluk Corporation (QC) and the Marine Institute to conduct exploratory fishing and scientific exploration in four Qikiqtani Fisheries Alliance communities. In 2021 research was undertaken near the community of Kinngait, and Sanikiluaq, Nunavut. From a potential fishery development perspective (recreational or commercial), it was anticipated that most of the species of interest in waters adjacent to these communities will be distributed at depths <150 m and will have specific habitat preferences (i.e., depth, substrate type, rugosity, and other physical parameters). Along with experimental fishing and underwater video, accurately mapping these habitats while maximizing survey coverage was given priority.

The maiden voyage of QC's newly constructed 40' research vessel, Ludy Pudluk transited from The Launch at Marine Institute in Holyrood, Newfoundland to the communities of Kinngait and Sanikiluaq. The trip to and from Nunavut took a total of 81 days and 4300 nautical miles. The catamaran hull of the Ludy Pudluk provides a low draft to accomplish hydrographic survey work near the coastline and areas with various unidentified shoals. This is essential while working in the North as almost all waters outside the shipping routes are uncharted. The fisheries research was carried out using various fishing gear complemented by traditional knowledge and hired help from the local communities. Habitat assessment was carried out through underwater video and a multi-beam survey.

An abundance of benthic species was quickly identified near the community of Kinngait which proved problematic to harvest with some experimental gear but easily identified with underwater video. USBL provided positions associated with the towed video to identify the bottom substrate and depths at which these species were found. Further analysis of the video will quantify the abundance of species. The bathymetric data provides the physical elements associated with this habitat which can then be used to help identify similar areas. The Ludy Pudluk proved to be a capable vessel with a compliment of scientific equipment generally found on larger vessels with a much higher cost associated with research in the remote areas of the North.