Environmental characterization of the Hudson Strait Coral Hotspot: current state of knowledge

SHAWN MEREDYK
Department of Environmental Science, Memorial University of Newfoundland, St.John's, Newfoundland and Labrador A1C 5S7, Canada <smeredyk@mun.ca>

The Hudson Strait Coral Hotspot (HSCH) is one of many areas in the northwest Atlantic that were identified as hotspots of coral biodiversity by the Canadian Department of Fisheries and Oceans (DFO) and Memorial University, in 2007. Previous DFO-Memorial University research has shown an elevated large weight (>500 kg) of cold-water sponges and broad diversity of cold-water corals are being caught as a result of commercial bottom fisheries within the Northwest Atlantic Fisheries Organization (NAFO) regions 0B and 2G.. Known and predicted cold-water coral and sponge habitats in the HSCH and Baffin Bay areas are presented as a series of maps. Qualitative predictive habitats, were generated using an interdisciplinary methodology; through an interaction analysis of oceanographic, geological (including sub-surface seismic profiles), biological, and ecological data relative to the fisheries (northern shrimp and demersal fish) spatial harvesting effort/"footprint". The proposed placements of Vulnerable Marine Ecosystems (VMEs) using an Ecosystem-based Management (EBM) approach are delineated and presented alongside knowledge gaps in habitat conservation for the HSCH. Efforts to sample naturally occurring petroleum seeps and coral and sponge habitat in the HSCH are scheduled for the summer of 2011.

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