

SUBMISSION TO THE
NUNAVUT WILDLIFE MANAGEMENT BOARD
FOR

Information: X

Decision:

Issue: Identification and Characterization of Benthic Vulnerable Marine Ecosystems (VMEs) and Ecologically and Biologically Significant Areas (EBSAs) in Baffin Bay and Davis Strait, Sub Arctic/Eastern Arctic

Background: DFO along with academic partners from two Universities are planning to undertake benthic surveys in the Davis Strait-Baffin Bay region in the summer of 2012 to further our knowledge of the ecosystem in this region. The benthic zone is the ecological region at the lowest level (bottom) of the ocean. The primary objective for the survey is to **Establish Baseline Data for Monitoring Arctic Marine Benthic Biodiversity** as part of Canada's contribution to the Arctic Marine Biodiversity Monitoring Plan developed for the Circumpolar Biodiversity Monitoring Program of the Arctic Council. The overall goal of the Monitoring Plan is: "to improve our ability to detect and understand the causes of long-term change in the composition, structure and function of Arctic marine ecosystems, as well as to develop authoritative assessments of key elements of Arctic marine biodiversity". This work will be of direct relevance to ecosystem based management of fish stocks in the area, as the two main commercial marine fisheries (Greenland Halibut and Northern Shrimp) are tightly linked to the benthos (animals which live on, in or near the seabed) and their distributions controlled by physical factors including temperature.

Our proposed route and the sampling stations are given in Figure 1. We will be using a DFO research vessel called the CCGS Hudson (Figure 2). The survey would begin July 26, 2012 in Halifax and end August 22, 2012 in Iqaluit. Benthic video and photographic drift transects will be conducted using Campod (to 700 m) (Figure 2) and the Natural Resources Canada (NRCAN) 4K camera (capable to 4000 m). Videograb (Figure 2) will be deployed to sample the bottom in certain places and to collect voucher specimens for identification purposes.

Hunters and Trappers Organizations in 8 adjacent communities (Kimmirut, Iqaluit, Pangnirtung, Qikitarjuaq, Clyde River, Pond Inlet, Arctic Bay and Grise Fiord) have been contacted and to date letters of support have been received from Pond Inlet, Kimmirut and Clyde River. The Qikiqtaaluk Wildlife Board has also been informed about this proposed research.

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Date: May 5, 2012

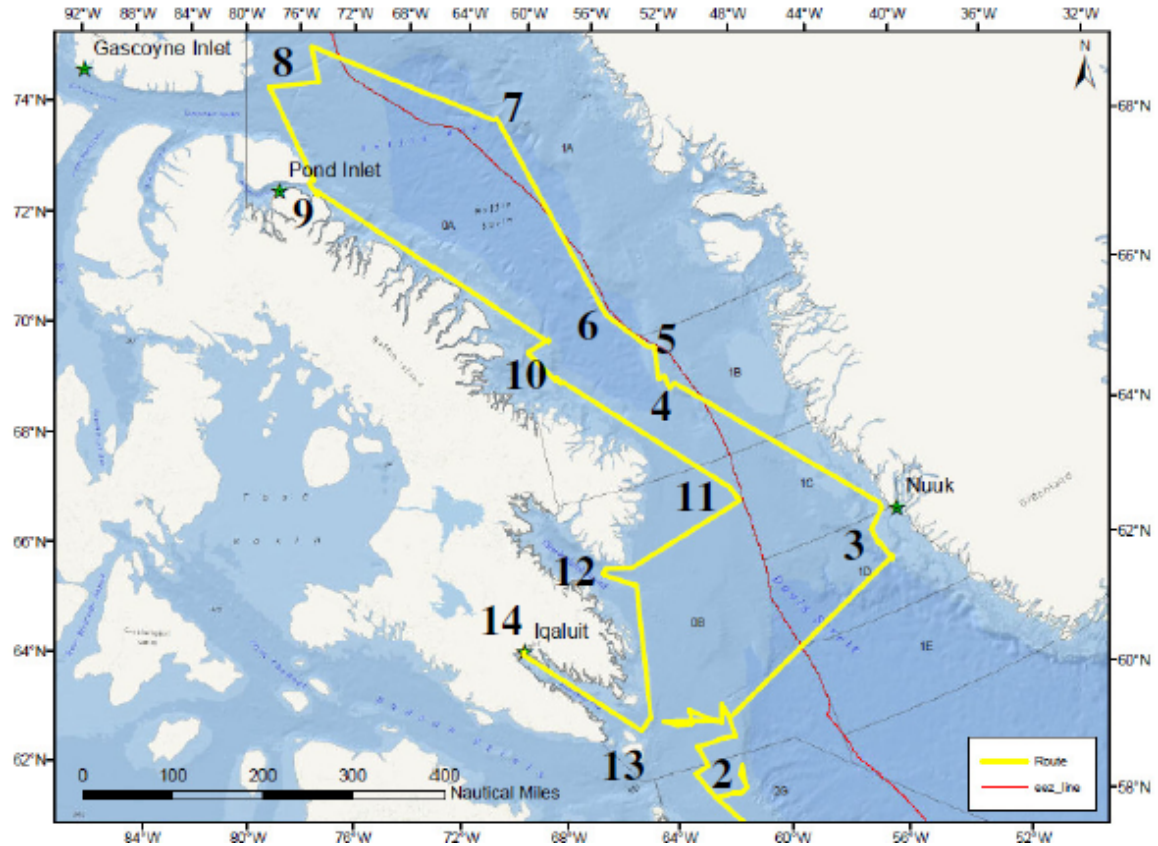


Figure 1. The proposed vessel route (yellow line) and sampling areas (black numbers), except for 14 which is the end point of the trip, not a sampling station. The Canadian border is shown by the red line.



Above: RV Hudson deploying camera pod over the side in 2002 (photo courtesy DFO-BIO).

Below: Campod- Tripod with camera and lights to take pictures of the bottom.



Above: Tow camera aboard RV Hudson (photo courtesy DFO-BIO).

Below: Videograb- video camera linked to a bottom sample grab so we can see what we are sampling.



Figure 2. The ship and equipment that we will use in our survey.