

SCIENTIFIC RESEARCH LICENSE

LICENSE NUMBER 02 018 22R-M

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TITLE: Lake Ice in the Canadian High Arctic

OBJECTIVES OF RESEARCH:

Lake ice is an important part of the cryosphere and recent projections suggest a pan-arctic reduction by the end of the century in ice duration and thickness. Since the majority of ground-based ice observations in Canada ceased by the 1990s, recent changes in ice regimes have been primarily noted through modelling and remote sensing. Observation data, essential for validating both remote sensing and modelling research, is currently inadequate though some volunteer monitoring efforts have emerged since the decline of Canada's monitoring network and have been utilized for ice research. As changes are noted in ice regimes, we need to fully understand the implications and response in terms of water and energy balance and their effects on other areas of research. To achieve this, in situ data of lake ice in Canada is being collected across a latitudinal gradient. The field data will be used to improve the effects of snow cover on modelled ice thickness, as well as to isolate how the duration of the modelled ice break-up season is affected by the shape/size of the lake.

TERMS & CONDITIONS:

The holder of the licence will be bound by the terms and conditions of the Nunavut Impact Review Board Screening Decision Report and the Department of Culture & Heritage archaeological sites terms and conditions. The license holder will abide by all special public health protection measures imposed by Nunavut's Chief Medical Officer of Health in response to the Covid-19 Pandemic, including restrictions on non-essential travel to Nunavut. These terms and conditions will form part of this licence.


DATA COLLECTION IN NU:

DATES: May 9,2022 to August 17,2022

LOCATION: Resolute, Polar Bear Pass

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Jamal Shirley
Science Advisor



for