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# Nunavummi Qaujisaqtulirijikkut / Nunavut Research Institute

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## SCIENTIFIC RESEARCH LICENSE

LICENSE # 01 011 21R-M

ISSUED TO: Philip Camil  
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AFFILIATION: Bowdoin College

TITLE: Peat Expansion in Arctic Tundra (Baffin Island)--Pattern, Process, and the Implication  
for the Carbon Cycle

### OBJECTIVES OF RESEARCH:

As climate warms, landscapes will increasingly become vegetated, and this will lead to greater storage of carbon in soils. To the extent that arctic landscapes sequester more carbon, this may serve as a carbon sink that could possibly slow the rise in atmospheric greenhouse gases. Scientists refer to this process generally as a greening of the arctic. We are particularly interested in wetland soils, or peat patches, dominated by peatmosses from the genus *Sphagnum* because they store the most carbon in arctic landscapes. There is evidence from Alaska and elsewhere in the arctic that these peat patches may have expanded in size over the past few decades with warming. The overall goals of our research include -sampling soils to measure the amount of carbon stored -relate the soil carbon storage to the types of vegetation present -map the spatial area of vegetation types -measure potential environmental controls that might be affecting the area of peat patches, including air and soil temperatures, soil moisture, and topography.

### 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.

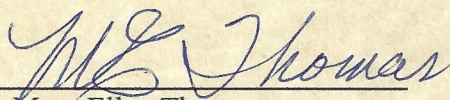
### DATA COLLECTION IN NU:

DATES: July 01, 2021-July 31, 2021

LOCATION: Cape Dorset, Iqaluit, Kimmirut & Pangnirtung's Surrounding Areas

Scientific Research License 01 011 21R-M expires on December 31, 2021

Issued at Iqaluit, NU on February 21, 2021

  
Mary Ellen Thomas  
Science Advisor

