

# Nunavummi Qaujsaqtulirijikkut / Nunavut Research Institute

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## SCIENTIFIC RESEARCH LICENSE

LICENSE # 01 019 19N-A

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

### OBJECTIVES OF RESEARCH:

Climate is warming worldwide and is most rapid in the polar arctic north. This warming is a result of the emissions of greenhouse gases to the atmosphere. The most important gas contributing to warming is carbon dioxide, which comes mainly from the burning of fossil fuels for energy. Because plants use carbon dioxide as they grow, and this carbon is stored in soils when plants die, there is interest in learning whether vegetation and soils might be able to take up some of the fossil fuel carbon dioxide released to the atmosphere. The plant uptake of carbon may increase in the future as climate warms and landscapes become more vegetated, as areas that are open tundra now become more like the spruce forests and bogs to the south. Scientists refer to this process as a "greening" of the arctic. Arctic greening may possibly help to slow the rise of greenhouse gases in the atmosphere and, therefore, climate warming.

### 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. These terms and conditions will form part of this licence.

### DATA COLLECTION IN NU:

DATES: July 07, 2019-July 27, 2019

LOCATION: Cape Dorset, Iqaluit, Kimmirut, North Netting Lake, North of Amadjuak Lake

Scientific Research License 01 019 19N-A expires on December 31, 2019

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for Mary Ellen Thomas  
Science Advisor

