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# Nunavummi Qaujisaqtulirijikkut / Nunavut Research Institute

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## SCIENTIFIC RESEARCH LICENSE

LICENSE # 02 008 20R-M

ISSUED TO: Maya Bhatia  
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TEAM MEMBERS: E. Bertand, C. Dhoonmoon, S. Waterman, B. O'Donnell, M. Cavaco

AFFILIATION: University of Alberta

TITLE: Impacts of Melting Tidewater Glaciers on Marine Biogeochemical Cycles

### OBJECTIVES OF RESEARCH:

We propose to characterize the biogeochemical impact of glacial runoff and meltwater plumes on a regionally productive marine ecosystem that is central to the health of indigenous communities. Our proposed field work program for 2019-2024 will be completed on the Sverdrup Glacier (Devon Island), Belcher Glacier (Devon Island), Sydkcap Glacier and Jakeman Glacier (S. Ellesmere Island) and their downstream marine environments (Jones Sound). This project is designed to thoroughly characterize and quantify the material exports from the glaciers, define their environmental controls, and assess their impacts in downstream marine environments. We have assembled a team of new and established Canadian researchers capable of characterizing the physical, biological and chemical properties of subglacial water, from its meltwater origin, through its transport along the glacier bed, and finally to its discharge into and dispersion within the ocean.

### 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: August 02, 2020-August 30, 2020

LOCATION: Devon Island, Ellesmere Island

Scientific Research License 02 008 20R-M expires on December 31, 2020

Issued at Iqaluit, NU on February 07, 2020



Mary Ellen Thomas  
Science Advisor

