Task Agreement #: G20AC00322
Project Title: Early Warning Vital Signs in Arctic Network Parklands - Developing Baseline Moss Tissue Concentrations in Bering Land Bridge National Preserve

Discipline: Natural
Type of Project: Technical Assistance/Research
Funding Agency: United States Geological Survey
Other Partners/Cooperators: Colorado State University
Student Participation: No
Effective Dates: 08/01/2020 07/31/2021
Funding Amount: $51,292.00

Investigators and Agency Representative:

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Project Abstract:

Project goals: The goal of this is to determine an empirical critical load for N, S, and metals based on lichen communities and known deposition levels. This will require documentation of depositional patterns using H. splendens as a relatively inexpensive biomonitor, and the creation of spatial correlation models that transform the moss tissue based concentration results into deposition-based load results for comparison to critical loads.

Project objectives: Specific objectives include:
1. Modeling of spatial patterns (Bayesian posterior predications/spatial interpolation) of BELA contaminants deposition in moss tissues and snowpack.
2. Development of a spatial threshold model of the biological effects of metal deposition on NPS lands along the Red Dog Mine haul road.