



Project acronym: ARCVAR

Project title: Herbivory Variability in the Arctic

Project leader: Aino Kalske, University of Turku, Finland

Discipline: Earth Sciences & Environment: Ecosystems & Biodiversity

Station(s): Canadian High Arctic Research Station (Canada)

Interactions between organisms vary in strength among individuals and species, and across space and time. Studies of interactions commonly focus on means of interaction metrics, although other aspects of the distribution of those metrics, such as variance and skew, can also be critical for understanding the ecology and evolution of species and their interactions. ARCVAR will be a part of a global effort to understand variability in herbivory (Herbivory Variability Network, HerbVar). So far, despite impressive data collection efforts, data from the arctic areas is largely missing and data from the subarctic is sparse. The preliminary results from data collections indicate a major role of latitude in explaining variability in herbivory, with declining variability with latitude. To ensure this is a true pattern, and to understand the causes behind high variability in herbivory in high latitudes, we ought to explore those areas in more detail. We will use standardized protocols (by HerbVar network) to conduct data collection surveys from 3-5 different plant species and/or on different plant reproductive structures (aim for a total of 20-25 surveys). We seek funding to work at stations allowing us to collect data from subarctic to high arctic ecosystems (stations: RIF Field Station, Arctic Station, UK Arctic Research Station, Kluane Lake Research Station, Canadian High Arctic). This will also be the first step towards a circumpolar expansion of the network.