



Project acronym: Stream-EX

Project title: Stream-EX: Controls on stream exports across the periglacial landscape of Greenland

Project leader: Andrea Pain, University of Maryland Center for Environmental Sciences, United States

Discipline: Earth Sciences & Environment: Water sciences/Hydrology

Station(s): Sermilik Research Station (Greenland/Denmark)

This research project aims to compare terrestrial solute fluxes from proglacial rivers and non-glaciated streams in the Sermilik region of eastern Greenland to better understand how these fluxes change with ice sheet retreat as the proportion of proglacial and non-glacial streams varies. These results will improve predictive capability of impacts of climate change on Greenlandic and other high latitude ecosystems, with implications for carbon sequestration and delivery of nutrients to coastal waters. Our research objectives are to characterize the magnitude and variability of solute export (mineral weathering products, nutrients, metals, carbon, and CO₂ and CH₄) from the retreating Mittivakkat Glacier and adjacent non-glacial streams.