



HAL
open science

Connectivity changes between slopes and Umiujaq River, Nunavik, Canada

Anne-Julia Rollet, Vincent Filion, Najat Bhiry, Armelle Decaulne

► **To cite this version:**

Anne-Julia Rollet, Vincent Filion, Najat Bhiry, Armelle Decaulne. Connectivity changes between slopes and Umiujaq River, Nunavik, Canada. International Symposium of LabEx DRIIHM 2024, Jun 2024, Montpellier, France. , 2024, 10.34972/driihm-702b35 . hal-04622268

HAL Id: hal-04622268

<https://hal.science/hal-04622268v1>

Submitted on 24 Jun 2024

HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.

Connectivity changes between slopes and Umiujaq River, Nunavik, Canada

Anne-Julia Rollet, Université Rennes 2 & CNRS LETG, France

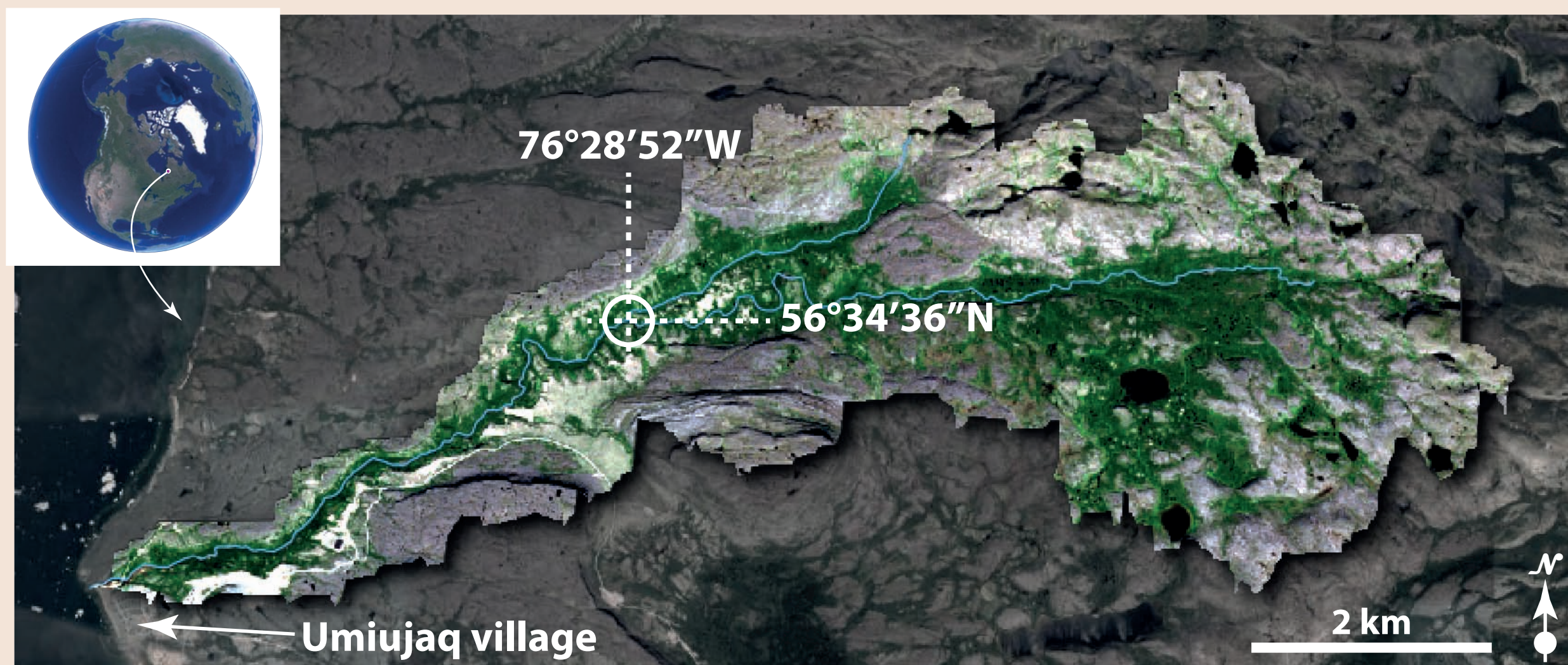
Vincent Filion, Université Laval, Québec, Canada

Najat Bhiry, Université Laval et Centre d'études nordiques, Québec, Canada

Armelle Decaulne, CNRS LETG, Nantes, France



UMIUJAQ WATERSHED: CONTEXT AND OBJECTIVES



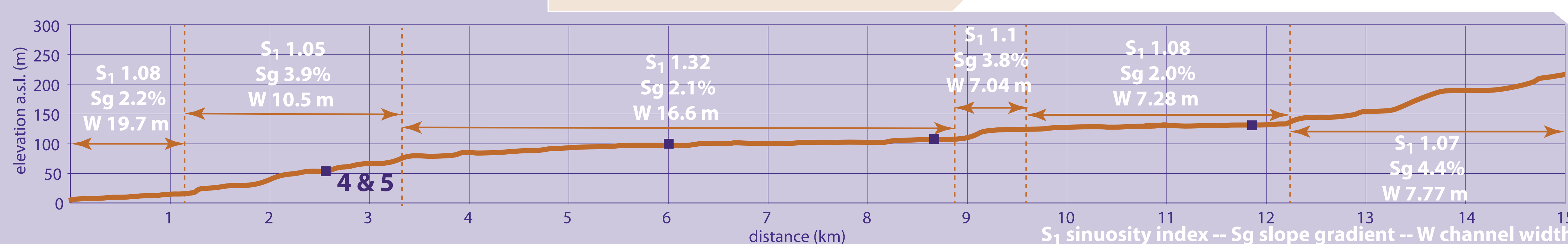
Umiujaq River watershed is located in subarctic Nunavik, on the eastern shore of Hudson Bay. With a surface of 27 km², the watershed drains rocky surfaces as well as sandy sediments from the inherited glacio-fluvio-marine terraces formed at the end of the last glacial period. The village of Umiujaq, and associated infrastructures, develops along the downstream third of the river. We propose a multiscale approach, from the watershed to the site, to explore connectivity dynamics. That documents the potential slopes-to-channel sediment fluxes that might modify the watershed socio-ecosystem.



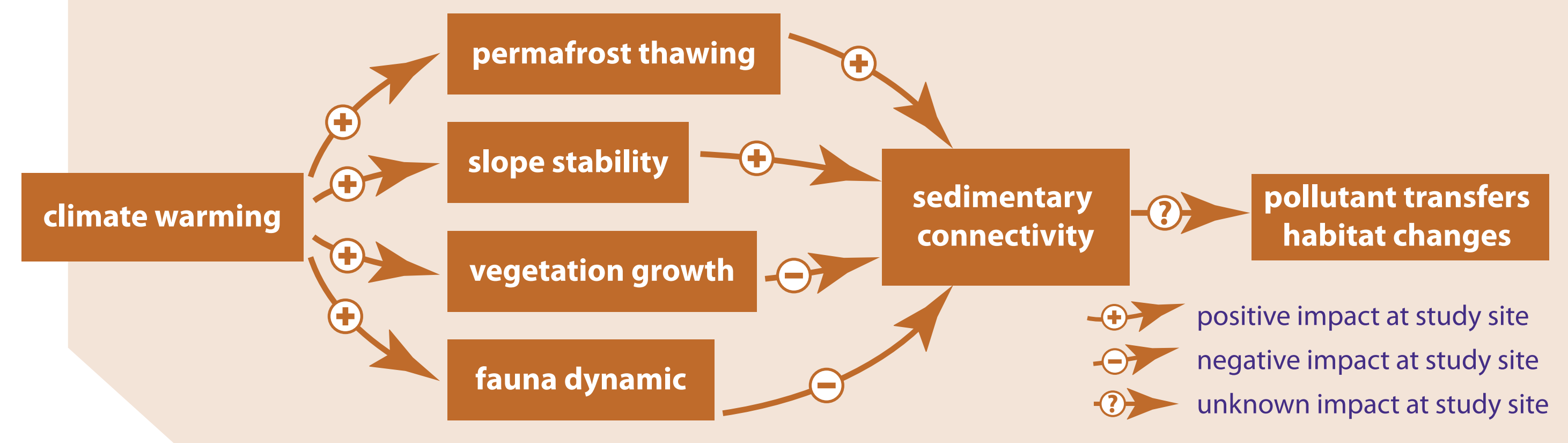
THE WATERSHED SCALE



River long profile

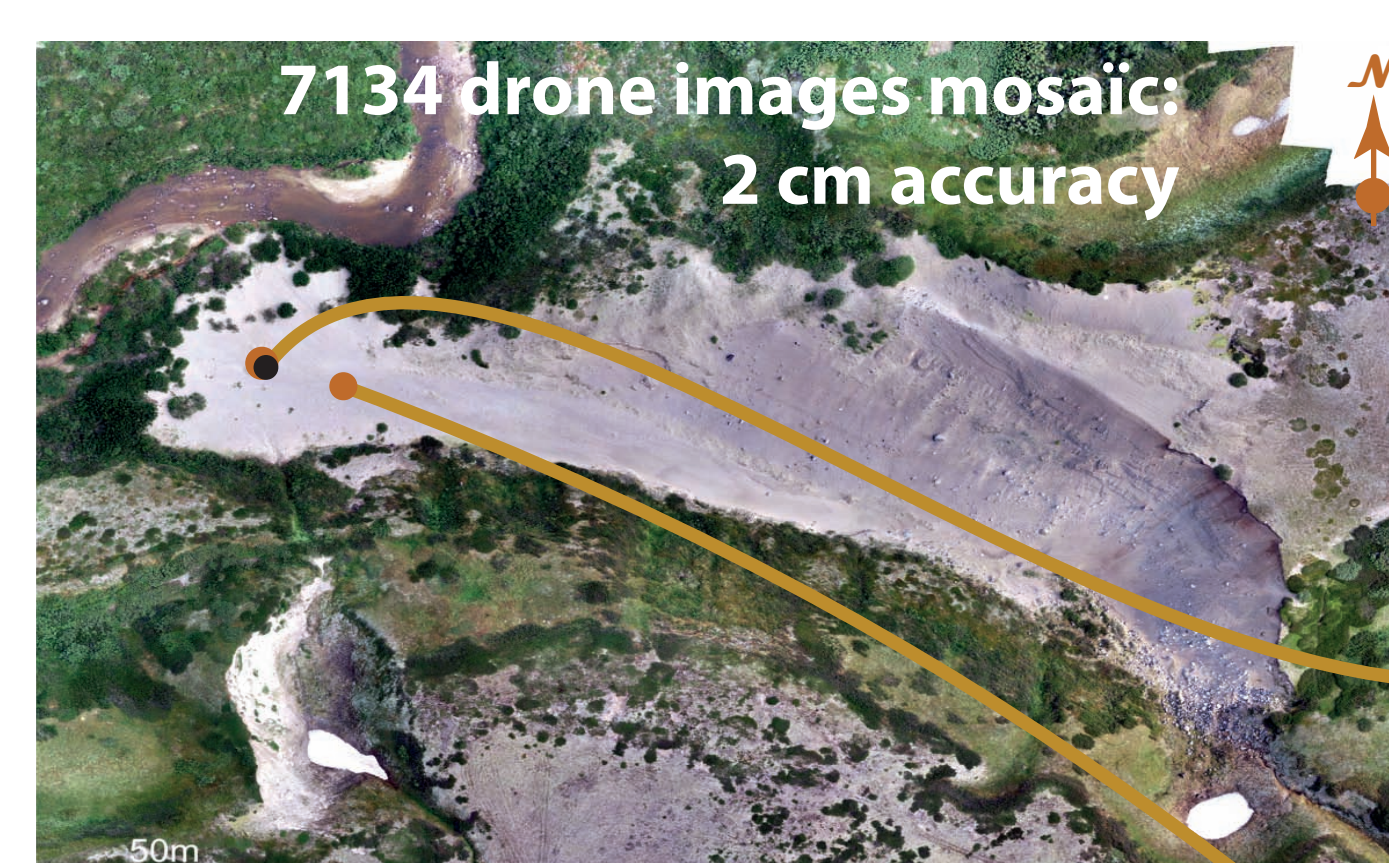


THE SITE SCALE



METHODS & RESULTS ON SITE #3

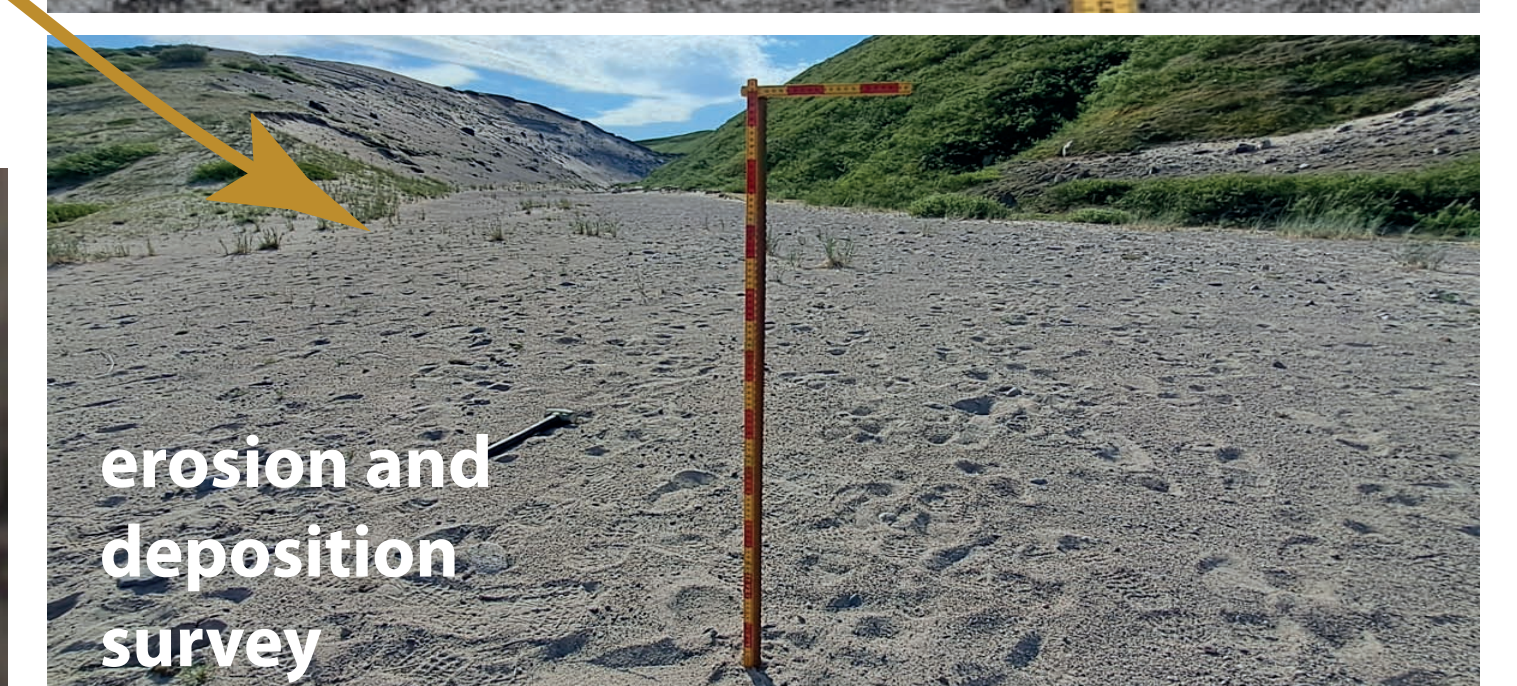
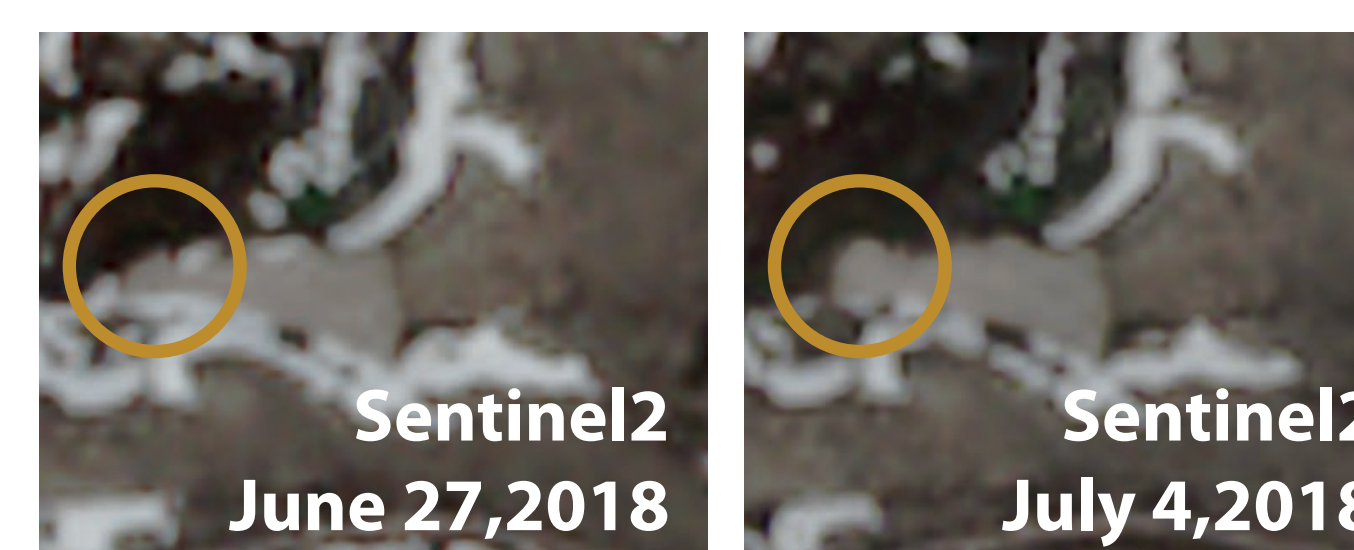
1 Topographic survey



2 Stratigraphic survey



3 Satellite images survey



4 Sediment burial dendrochronologic survey

