

Project acronym: DISKOTRAIT

Project title: 12 years of plant functional community change across a species rich tundra landscape on Disko Island, West Greenland

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Discipline: Earth Sciences & Environment: Ecosystems & Biodiversity

Station(s): Arctic Station (Greenland/Denmark)

In this project, we quantified how the recent 13 years of unprecedented ambient climate warming on Disko Island, Greenland, affected vegetation composition and a comprehensive suite of the most important leaf and stem functional traits across the tundra landscape. We did this by collecting data in 2021, which we are currently analysing together with similar data obtained in the same plots, located in the same vegetation types, and using the same methodologies, in 2008. In contrast to most arctic and global trait-based research, we used a sampling methodology that accounts for both interspecific and intraspecific trait variation, across space and time, allowing us to investigate the importance of both species-turnover and genotypic plasticity in regulating functional community changes within and between five distinct tundra vegetation types.