

Project acronym: ShrubSOC

Project title: Shrubs and Soil Organic Carbon

Project leader: Thomas Parker, University of Stirling, UK

Discipline: Earth Sciences & Environment: Ecosystems & Biodiversity

Station(s): Arctic Station (Greenland/Denmark), Greenland Institute of Natural Resources (GINR)

(Greenland/Denmark)

The ShrubSOC project will test the hypothesis raised by previous Inter-Act funded work that tall shrub vegetation is associated with lower soil carbon than adjacent tundra. This work will expand surveys to Arctic Station and Kobbefjord in Greenland to test whether patterns that were observed at Abisko still hold true in permafrost regions. After consultation with the project leader, station staff will identify multiple independent transitions from tall shrub tundra to adjacent low-stature tundra. Here they will make simple vegetation assessments and basic soil measurements in the active layer. They will take soil samples from organic and mineral and organic horizons which will be sent to the project leader for processing and eventual calculation of soil carbon stocks. This inexpensive and low risk approach will yield important data which is severely lacking in the published literature.