

Candidate or Master thesis project in Earth Science

Mapping degrading palsas

Permafrost is thawing at a rapid pace in Scandinavia due to warming temperatures. Peat plateaus, also called palsa, are frozen peat deposits storing large amounts of carbon. Thawing these peat deposits and decomposition to methane can have a positive feedback mechanism for the climate. In this project you will work with GIS methods to quantify degrading palsas in northern Sweden.

You will work with drone imagery, historical orthophotos or satellite data to map palsas and their degradation over time. This study can be either at local scale, focusing on palsas around Abisko or across all of northern Sweden. Prior GIS knowledge is required for this project. The project is suitable both as a purely GIS based project or combined with field work for Masters project.

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