



Project acronym: GLAKPENN

Project title: Glaciation of the Kola Peninsula, Arctic Russia

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Discipline: Earth Sciences & Environment: Other - Environment

Station(s): Khibiny Educational and Scientific Station (Russia)

Examining the behaviour of contemporary ice sheets is fraught with difficulties because direct access to the subglacial environment is impossible. However, formerly glaciated landscapes act as an important analogue for understanding contemporary glaciation/deglaciation. This is crucial given the current, and projected, melting of the Greenland and Antarctic ice sheets, both of which have fuelled an interest in ice sheet deglaciation rates and processes. These contemporary ice sheets are similar in nature to the Fennoscandian Ice Sheet (FIS), which covered much of northern Europe, Scandinavia and Russia during the Last Glacial-Interglacial Transition (LGIT: c. 23 to 11 ka BP). Overall, deglaciation of the FIS is reasonably well-understood, except for the Kola Peninsula (north-western Russia) - an area of the Arctic that has received very little research attention. For the first time, we aim to reconstruct the pattern of deglaciation for the Kola Peninsula using a multi-proxy approach combining remote and field mapping with sedimentology and numerical age dating (Optically Stimulated Luminescence). This will provide the first detailed empirical reconstruction for the whole of the Kola Peninsula. Such data is crucial because it can be used to validate numerical ice sheet model simulations which will subsequently improve projections of ice sheet dynamics and sea level rise.