



Zweimestriges Studienprojekt MSc Landschaftswissenschaften SoSe 2021 - WiSe 2021/22

Landscape System Analysis Northern Finland



Content of the two-semester study project of Physical Geography & Landscape Ecology

The boreal and subpolar regions of Europe are characterised by relatively cold climate, resulting in comparably slow landscape processes, lower species diversity and limited options for land use by humans. We want to study and analyse these land systems from different perspectives: physical geographical components such as permafrost landforms (e.g. palsas) and processes (e.g. solifluction and glacial), vegetation development (incl. tree line) and aquatic ecology. These components form the natural base for human land uses including forestry, reindeer husbandry, tourism, nature conservation or mining. Hence, also various human activities and the ecosystem services they harvest will be assessed.

Learning outcomes

System-analytical assessments of different landscapes in Europe's subpolar zone with a strong focus on field methods (RTK GPS, UAV remote sensing, terrestrial laser scanning TLS, ground-penetrating radar, peat drilling, vegetation biomass survey, lichen dating, land use mapping) and human-environmental systems analysis (e.g. land use options and conflicts, ecosystem services). The field course includes partly work under rough conditions, thus respective body fitness and equipment are needed. The analysis of data collected during the field course will take place in the following winter semester in the GIS laboratory at the Institute of Physical Geography and Landscape Ecology at LUH.

Schedule of the study project

During summer semester 2021:	1 preparatory group meeting at LUH
21.08. - 04.09.2021:	Data collection during a two-week field course in Finland
Winter semester 2021/22:	Data analysis in Hannover

Organisational matters

- Travel route (by 2 minibuses): Hannover – Travemünde (ferry) – Helsinki – Joensuu – Rovaniemi – Kilpisjärvi – Jyväskylä – Helsinki – Travemünde (ferry) – Hannover
 - Accommodations: youth hostel, comfortable huts and research stations
 - Number of participants LUH: max. 14 (the course is part of our ERASMUS agreement with the University of Eastern Finland, which will participate with additional 6 students + 2 teachers)
 - This module is given completely in English, thus respective language skills are mandatory
 - Expected costs for students: approx. EUR 650
- **Expressions of interest/registration** by email to burkhard@phygeo.uni-hannover.de latest **March 15** indicating your name and semester within the MSc „Landschaftswissenschaften“.

Benjamin Burkhard & Alexander Störmer

Corona update: In case we will not be able to go to Finland in August, the field parts of the study project programme will take place in the Hannover region (like in summer 2020).