



The effects of climate change on permafrost in Northern Norway (Finnmark)

Are you interested in ...

- climate change and its impacts on terrestrial ecosystems?
- understanding how microorganisms and plants are affected by climate and effect climate?
- experiencing the wild permafrost affected nature in high latitude ecosystems in Norway?

MSc internship opportunities

Climate change is having a big impact on permafrost, causing it to melt. We are interested in understanding the impacts of thawing permafrost on future climate change. We make field observations to quantify greenhouse gas (GHG) emissions where permafrost is thawing to understand how climate and environmental change affect permafrost environment and affect greenhouse gas exchange. Our site is also part of the International Tundra Experiment, and we have set up Open Top Chambers (OTC's) to investigate how additional warming affects tundra ecosystems, plant- and microbial communities.

Thesis topics examples:

- What is the effect of ebullition (methane bubbles) and oxidation in thaw ponds to GHG emissions?
- How does warming (OTC) affect plant functional trait composition?
- How does warming (OTC) affect microbial community composition, soil nutrients?
- How does bryophyte/sedge colonization affect GHG exchange?

What we can offer:

- Strong theoretical background in ecosystem ecology
- Fieldwork experience in Finnmark, Norway
- Interdisciplinary research and project development
- Quantitative skills and training in Earth System Modeling
- Scientific writing skill development
- Possibility to present the results in national/international conferences

If you are interested please contact Inge Althuisen (ialt@norce-research.no or hanna.lee@ntnu.no) to discuss possibilities

