

Project acronym: DarkNite

Project title: Evaluating natural darkness and light pollution in subarctic Scandinavia

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Discipline: Earth Sciences & Environment: Other - Environment

Station(s): Värriö Subarctic Research Station (Finland)

Artificial light at night is becoming a global problem for biodiversity and it is encroaching regions supposed to be pristine, like for example sub-Arctic and Arctic regions.

This project aims to gain understanding of the amount of light pollution in far north Scandinavia by monitoring light at night at several INTERACT stations:

- what is the background night sky brightness for a place free of light pollution?
- how severe is local light pollution?
- what are the frequencies and intensities of natural light phenomena such as auroras?
- what is the impact of snow on the level of light pollution?
- what is the impact of ice crystals on the level of light pollution?

We plan to install night sky radiometers that measure artificial light at night at each station to monitor the night sky brightness over one winter season. We further aim to use all-sky camera equipment to measure the nocturnal light near the stations.