



Project acronym: GLORIA-LAT

Project title: GLOBAL OBSERVATION RESEARCH INITIATIVE IN ALPINE ENVIRONMENTS - LATNJAURE

Project leader: Thomas Vanneste, Ghent University, Belgium

Discipline: Earth Sciences & Environment: Ecosystems & Biodiversity

Station(s): Abisko Scientific Research Station (Sweden)

This project was performed within the framework of the Global Observation Research Initiative in Alpine Environments (GLORIA; <https://gloria.ac.at/>). This network consists of approximately 70 target regions (each with usually four summit sites), distributed across six continents. All summit sites of a target region are located along an elevational (thermal) gradient from the treeline ecotone to the upper limits of plant life. These summit sites are monitored at regular time intervals (usually five to ten years) according to a standard protocol (GLORIA Multi-Summit Approach). The main objective of this network is to study the climate-induced impacts on ecosystems limited by cold temperatures across all major biomes from tropical to polar climate zones. Here we specifically focus on the GLORIA target regions situated in the vicinity of the Latnjajaure Lake in Northern Sweden (SE-LAT). This target region was established in 2001 and consists of four summit sites: 1. Rakkasvare (RVA): 68.43136 °N, 18.59554 °E, 492 m a.s.l. 2. Kårsavagge (KVA): 68.34221 °N, 18.50319 °E, 1000 m a.s.l. 3. Latnjachorru (LCH): 68.35533 °N, 18.52224 °E, 1300 m a.s.l. 4. Kårsatjåkka (KTJ): 68.34817 °N, 18.33363 °E, 1560 m a.s.l. These summit sites were previously surveyed in 2001 and 2008 (apart from Kårsatjåkka, which was only surveyed in 2001). Due to the retirement of the responsible researcher for this site, Prof. Ulf Molau, no revisit had been done since 2008, and we now aimed to continue the recording on these summits as agreed upon with the Gloria coordinator and Prof. Molau.