

Project acronym: ALDYRO

Project title: Alien species dynamics along mountain roads and trails

Project leader: Jonas Lembrechts, University of Antwerp, Belgium

Discipline: Earth Sciences & Environment

Station(s): Abisko Scientific Research Station, Sweden

With the underlying proposal, we aim to continue our long-term monitoring project of plant species distribution along mountain trails in the subarctic Scandinavian mountains that has been initiated in 2016. This proposal builds on the resurvey of 40 transect along 2 mountain trails and the additional survey of 20 new transects along 1 extra trail, reaching from 400 till 1200 m a.s.l. in the northern Scandes (in the vicinity of the Abisko Research Station, Sweden, (68°26'18" N, 17°25'40" E)). These transects are part of a long-term global observational project from the Mountain Invasion Research Network (MIREN, [www.mountaininvasions.org](http://www.mountaininvasions.org)).

Along these 40 transects, reaching from the trailsides till 20 meters into the natural vegetation, we assessed alien and native species composition (presence/absence, abundance and cover per species) in 2016. Two years later, summer 2018, the same transects will be resurveyed and data will be used to study species dynamics (a.o. species turnover, shifts in species interactions, upward movement and cover expansion of alien and native species) in trailsides and the natural vegetation.

With this monitoring project, we gather fundamental information on the dynamics of plant species distributions in remote cold-climate regions, where species movement – and the human disturbances and climate change driving them – are rapidly on the rise. Increasing our knowledge on this important component of global change in the Arctic ties in very well with the main goals of INTERACT and the research performed at the Abisko Research Station, where identifying, understanding, predicting and responding to different global changes has always been a main priority.