



Affiliation:  
University of Helsinki  
Country:  
Finland

---

[Linkedin](#)  
[Twitter](#)

Prof. Bäck's field is forest-atmosphere interaction and feedback. A faculty member at the University of Helsinki (UHEL), Institute for Atmosphere and Earth System Research INAR, she has contributed to the conceptual understanding of how eco-physiological processes in the biosphere such as biogeochemical cycles, trace gas exchange and soil processes are affected by environmental factors. In particular, she is interested in how ecosystems act as carbon sinks and contribute to atmospheric aerosol formation, slowing down the climate change, especially in arctic and boreal regions. In this regard, she has been involved in Arctic research for 30 years, and has studied the effects of atmospheric pollutants on forests in Lapland. Prof. Bäck also focuses on developing national, European and global research infrastructures for integrated, long-term observations of earth systems.

A consortium member and national focal point in the EU-FP7 ESFRI AnaEE (Analysis and Experimentation in Ecosystems), Prof. Bäck is a core team member and leader in work groups on funding mechanisms for European long-term ecosystem, critical zone and socio-ecology projects eLTER, Advance\_eLTER and eLTER PPP.

In 2017 she was awarded the 'Pro Scientia' recognition by the Finnish Academy of Sciences and Letters for her work in promoting scientific evidence for societal discourse on forests and climate change, especially for leading the EASAC (European Academies Science Advisory Council) assessment 'Sustainability of European Forests'. In 2018 she received the 'Open Science' award from the University of Helsinki.

Prof. Bäck is the elected co-chair in 2020 Gordon Research Conference on Biogenic Volatiles and Atmosphere, and has given several invited lectures in scientific and policy arenas. At UHEL she is Vice Chair of the Doctoral and MSc Programmes and leads the Ecosystem Processes Research Group comprising 20 post-doc and senior researchers and 25 post-graduate students ([www.helsinki.fi/metsaymparisto/index.html](http://www.helsinki.fi/metsaymparisto/index.html)). She is also in charge of ecosystem research at the SMEAR network ([www.atm.helsinki.fi](http://www.atm.helsinki.fi)) in Helsinki where she is a board member. She is a member in the national IPCC working group and the author of more than 140 peer-reviewed papers.

H-index: 25 (WoS); 34 (Google Scholar)

