



Current activities, ICP IM

**ICP Integrated Monitoring of Air Pollution Effects on
Ecosystems -**

ICP IM

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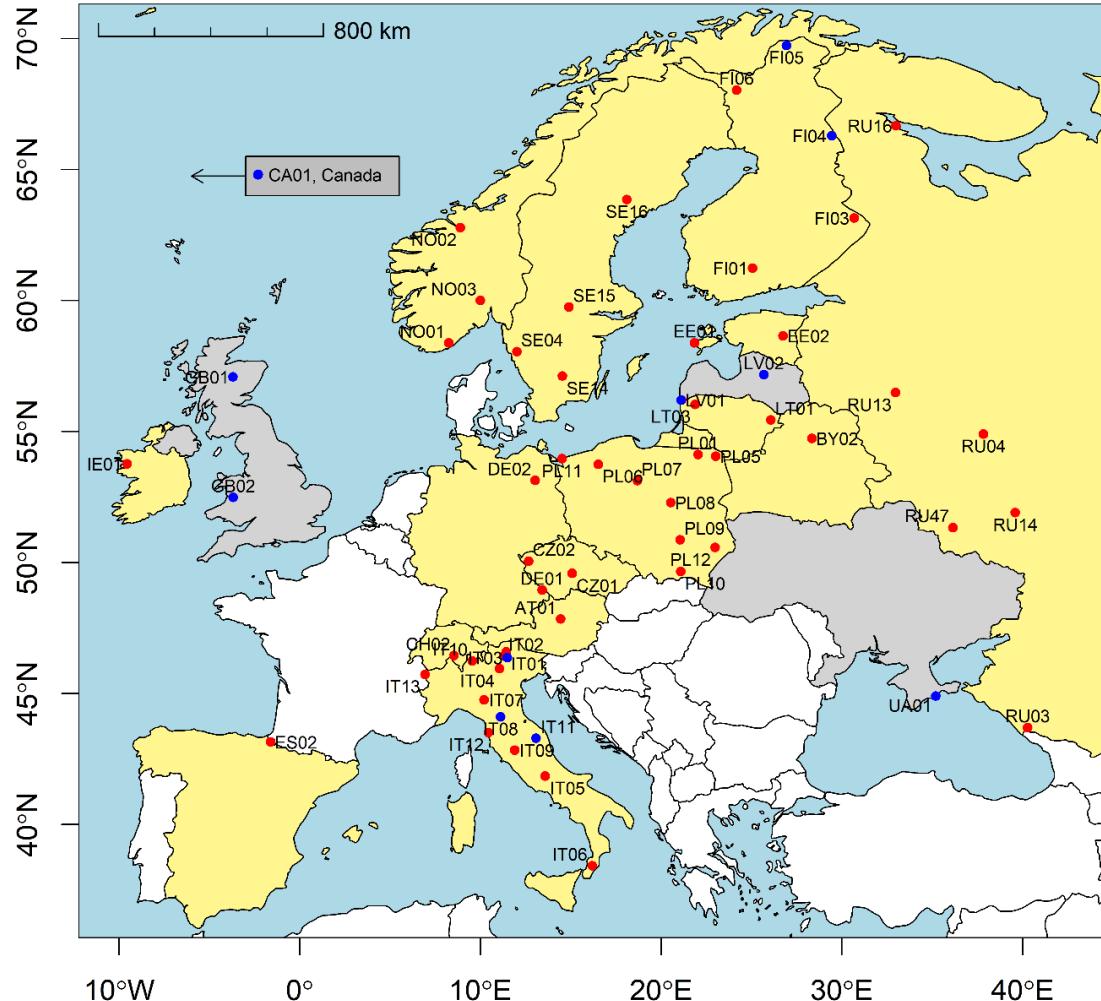


SWEDISH ENVIRONMENTAL
PROTECTION AGENCY





The current ICP IM network



15 active countries

49 active sites

New interest from Canada

● Active IM site

● Inactive IM site

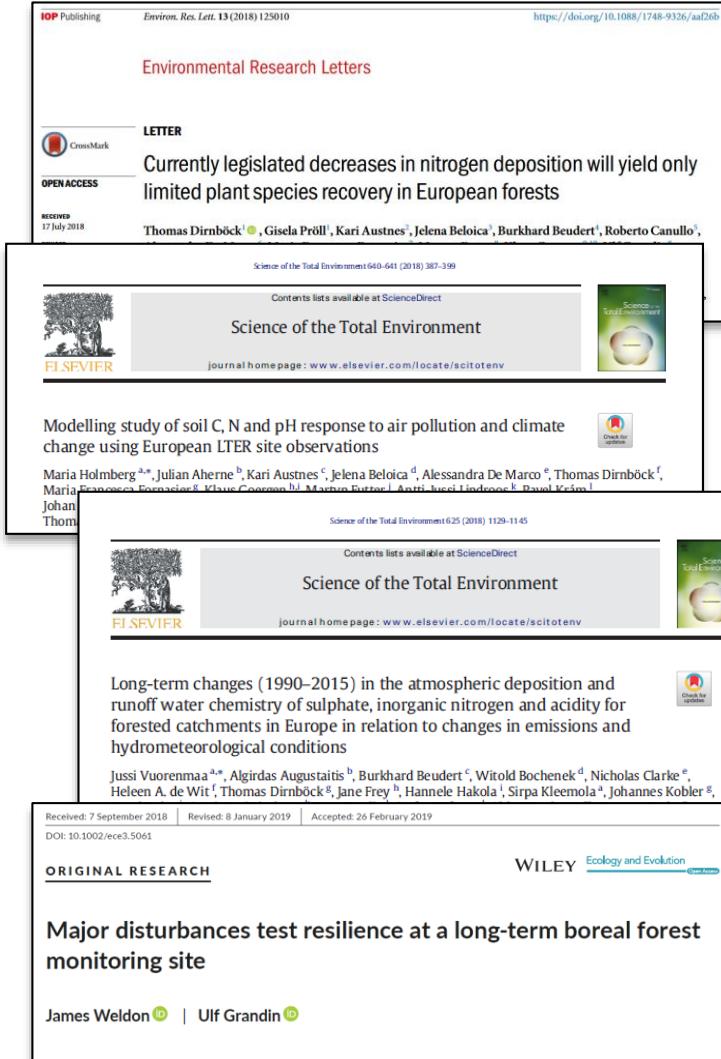
■ Country with active IM sites

■ Country with only inactive IM sites

■ Country without IM sites



Recent key achievements for current WGE strategy



1. Environmental Research Letters
IOP Publishing | Environ. Res. Lett. 13 (2018) 125010 | <https://doi.org/10.1088/1748-9326/aaf26b>
Environmental Research Letters
LETTER
CrossMark
OPEN ACCESS
RECEIVED
17 July 2018
Currently legislated decreases in nitrogen deposition will yield only limited plant species recovery in European forests
Thomas Dirnböck¹*, Gisela Pröll¹, Kari Austnes², Jelena Beločíká³, Burkhard Beudert⁴, Roberto Canullo⁵,
Science of the Total Environment 640-641 (2018) 387-399
Contents lists available at ScienceDirect
Science of the Total Environment
journal homepage: www.elsevier.com/locate/scitotenv
ELSEVIER
Modelling study of soil C, N and pH response to air pollution and climate change using European LTER site observations
Maria Holmberg^{a,*}, Julian Aherne^b, Kari Austnes^c, Jelena Beločíká^d, Alessandra De Marco^e, Thomas Dirnböck^f,
Maria Francesco Faronuzzi^f, Klaus Coesens^{h,i}, Marjan Buttae^j, Aarif Iqbal Uddin^k, Daniel Kiese^l,
Johan Thom^a,
Science of the Total Environment 625 (2018) 1129-1145
Contents lists available at ScienceDirect
Science of the Total Environment
journal homepage: www.elsevier.com/locate/scitotenv
ELSEVIER
Check for updates
Long-term changes (1990–2015) in the atmospheric deposition and runoff water chemistry of sulphate, inorganic nitrogen and acidity for forested catchments in Europe in relation to changes in emissions and hydrometeorological conditions
Jussi Vuorenmaa^{a,*}, Algirdas Augustaitis^b, Burkhard Beudert^c, Witold Bochenek^d, Nicholas Clarke^e,
Heleen A. de Wit^f, Thomas Dirnböck^g, Jane Frey^h, Hannele Hakolaⁱ, Sirpa Kleemola^j, Johannes Kobler^g,
Received: 7 September 2018 | Revised: 8 January 2019 | Accepted: 26 February 2019
DOI: 10.1002/ece3.5061
ORIGINAL RESEARCH
WILEY Ecology and Evolution
Major disturbances test resilience at a long-term boreal forest monitoring site
James Weldonⁱ | Ulf Grandinⁱ

Four scientific papers in priority topics

- Currently legislated decreases in nitrogen deposition will yield only limited plant species recovery in European forests. doi: <https://doi.org/10.1088/1748-9326/aaf26b>
- Modelling study of soil C, N and pH response to air pollution and climate change using European LTER site observations. doi: <https://doi.org/10.1016/j.scitotenv.2018.05.299>
- Long-term changes (1990–2015) in the atmospheric deposition and runoff water chemistry of sulphate, inorganic nitrogen and acidity... doi: <https://doi.org/10.1016/j.scitotenv.2017.12.245>
- Major disturbances test resilience at a long-term boreal forest monitoring site. doi: <https://doi.org/10.1002/ece3.5061>



Scientific papers on the 2020-21 work plan

Activity	Time frame	Status
1.1.1.15 Scientific paper on the impacts of internal catchment-related nitrogen parameters to TIN leaching	2020	Draft MS
1.1.1.16 Scientific paper on HM trends in concentrations and fluxes across ICP IM sites in Europe	2021	Draft MS
1.1.1.17 Scientific paper on the effects of N enrichment on forest vegetation. A co-operation between ICP IM and ICP Forests.	2020	Draft MS



Suggested work plan items for 2020-2022

Activity	Time frame	Status
Scientific paper on the recovery in the epiphytic lichen community after the decrease in S deposition	2020	Draft MS
Report/scientific paper on state and effects of mercury and heavy metals at the IM sites	2020	Draft MS
Cooperation with CDM on biodiversity and critical loads	2020-2022	Initial plans
Scientific paper on the relationship between critical load exceedances and empirical ecosystem impact indicators	2020	Draft MS
Expanding the IM network - IM light - To more countries	2020-2022	Plans



Thanks for your attention!