

FRANS-JAN W. PARMENTIER

Senior Researcher in Ecohydrology and Climate Interactions (with full professorial qualifications)

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I am an ecohydrologist who studies the flows of water and carbon in Arctic-Boreal ecosystems. Specifically, I am interested in disturbances that impact plant water uptake and the hydrology of permafrost environments – potentially triggering climate feedbacks that have global implications.

PAST RESEARCH EXPERIENCE

- 2018-2023: Associate Professor in Geobiosphere Science, Department of Physical Geography and Ecosystem Science, Lund University, Sweden (50% shared with UiO by being funded simultaneously in Sweden and Norway)
- 2018-2023: Researcher, Department of Geosciences, University of Oslo, Norway (50% shared with Lund Uni.)
- 2017-2018: Researcher, Dept. of Arctic and Marine Biology, UiT–The Arctic University of Norway, Tromsø
- 2016: Researcher, Norwegian Institute of Bioeconomy Research - Nibio, Ås, Norway
- 2013-2015: Researcher, Department of Physical Geography and Ecosystem Science, Lund University, Sweden
- 2011-2012: Postdoc, Department of Physical Geography and Ecosystem Science, Lund University, Sweden

ACADEMIC BACKGROUND

- **PhD in Hydrology and Geo-Environmental Sciences** (defended May 30th, 2011), Faculty of Earth and Life Sciences, VU University Amsterdam, the Netherlands (supervisor: prof. dr. A.J. Dolman). Thesis title: “Any Way the Wind Blows - Dynamics of Greenhouse Gas Exchange in Northeastern Siberian Tundra”
- MSc in Environmental Sciences, with a specialization in Ecohydrology (degree awarded in 2006). Faculty of Earth and Life Sciences, VU University Amsterdam, the Netherlands.

Career break:

- Five months of parental leave (2020)

COMPETITIVELY AWARDED GRANTS AND PROJECT COORDINATION

My total acquired project funding, as PI and co-applicant, exceeds 80 million NOK (equivalent to ~8 mln. USD)

As Principal Investigator:

- **Researcher Project for Scientific Renewal** (12 mln. NOK) awarded by the **Research Council of Norway** for SnowLess – “Less is More? – Snow cover loss as a driving force of increased vegetation damage in the Arctic-boreal region” (2024-2029)
- **Young Research Talent** grant (8 mln. NOK) awarded by the **Research Council of Norway** for WINTERPROOF – “Winter-proofing land surface models – quantifying the critical role of cold season processes in vegetation-permafrost feedbacks” (2017-2023)
- **Starting Grant** (3.5 mln. SEK) awarded by the **Swedish Research Council** for WINTERGAP – “Filling the winter gap - Quantifying the impact of winter warming on the Arctic carbon cycle and associated climate feedbacks” (2017-2023)
- **Individual Research project** (300 kNOK) funded by the Norwegian Foundation Fund for Soil- and Peat Research for “The impact of climate extremes on Norwegian coastal bogs” (2016)

As co-applicant:

- **WP-lead** and co-applicant of “Irrigation for frost protection” (2026-2027), Development Fund (700 kNOK)
- **Co-applicant** of “T3–Tipping Point Translation Tools” (2025), UiO:Energy and Environment (250 kNOK)
- **WP co-lead** and co-applicant of BioGov (2022-2027), **Research Council of Norway** (26 mln. NOK)
- **WP co-lead** and co-applicant of EMERALD (2019-2023), **Research Council of Norway** (30 mln. NOK)
- **WP-lead** and co-applicant of VANWHITE (2019-2022), **Research Council of Norway** (6 mln. NOK)
- **Co-applicant** and key researcher in CRUCIAL (2016-2017), **NordForsk** (3 mln. NOK)
- **Applicant** of an infrastructure grant for a flux tower on Svalbard (2015), Lund University (556 kSEK)

SUPERVISION EXPERIENCE

As main supervisor:

- PhD student Anna Walsh-Vilander at the University of Oslo, Norway (2025-2028)
- PhD student Alexandra Pongrácz at Lund University, Sweden (2018-2023, defended March 3rd, 2023)
- PhD student Joel D. White at Lund University, Sweden (2021-2023, defended February 24th, 2023)
- PhD student Marius S. A. Lambert at the University of Oslo, Norway (2018-2022, defended Dec. 20th, 2022)
- In addition to these PhD students, I have supervised 5 MSc and BSc students – both in Lund and in Oslo

As co-supervisor:

- 3 PhD students at the University of Oslo in Norway: Mats Ippach (2022-2026), Betty Wörner (2022-2026), and Gunnar Liahjell (2023-2026)
- 3 PhD students at Lund University in Sweden: Margot Knapen (2022-2026), Arnoud Hérout (2011-2013), and Norbert Pirk (2013-2017, defended February 10th, 2017)

TEACHING ACTIVITIES AND PEDAGOGICAL TRAINING

I have taught a variety of BSc and MSc courses over the years. At the University of Oslo, I have been course leader for the **BSc course in Hydrology** (2023) and for the **MSc course in Hydrological Modeling** (2026). In addition, I have lectured at the BSc courses in Meteorology (2020-2022) and Biogeochemistry (since 2025), as well as the MSc courses in Ecological Climatology (since 2019) and The Earth System (since 2022). Apart from the University of Oslo, I have lectured at MSc and BSc courses, and PhD summer schools, at Lund University, Aarhus University, the University of Gothenburg, UiT–The Arctic University of Norway, UNIS, and VU University Amsterdam. Furthermore, **I have over 250 hours in pedagogical training** from Lund University and the University of Oslo.

OTHER RELEVANT PROFESSIONAL EXPERIENCE

Editorial, reviewer and advisory roles:

- **Associate editor at JGR–Biogeosciences** (since 2021), published by the American Geophysical Union
- **Scientific advisory board member** (since 2025) for NGEA-Arctic, funded by the Department of Energy, USA (budget: \$27 million). Previously panel reviewer for phase III (2019-2024) and phase IV (2025-2027)
- **Guest editor at Environmental Research: Ecology** for a special focus issue on Arctic ecology (2026-2027)
- **Opponent** for three PhD defenses, at Lund University and the University of Copenhagen
- **External reviewer** for scientific proposals submitted to funding agencies across Europe and the USA
- **Expert reviewer** for >40 international scientific journals, including Nature and Nature Climate Change

Scientific working groups and conference organization:

- **Climate expert group** member of the Arctic Monitoring and Assessment Programme (**AMAP**), a working group of the Arctic council. **Lead author** (2x) and contributing author (3x) on five assessments (since 2012)
- **Key contributor** to authoritative flux synthesis activities by the Permafrost Carbon Network (since 2015)
- **Session convener** of “Cold regions in a changing climate”, **EGU** General Assembly, Vienna, Austria (2026)
- **Session convener** of “Peatlands under pressure”, **EGU** General Assembly, Vienna, Austria (2019-2022)
- **Lead convener** of the workshop “Ocean-Land Interactions at High Latitudes” in Nuuk, Greenland (2011)
- **Member** of the American Geophysical Union, European Geosciences Union and Norsk Geofysisk Forening

SCIENTIFIC AND SOCIETAL IMPACT

My research has delivered important advances to the scientific understanding of globally relevant carbon-climate feedbacks – through pioneering fieldwork in Norway, Svalbard and Siberia, and novel analyses of remote sensing data and model simulations across the Arctic-boreal region. This work has led to **62 peer-reviewed publications with over 9200 citations** (h-index: 40) – including 4 papers in GRL and 7 in Nature Climate Change.

Dissemination to scientists, policymakers and the public is important to me: I have given **invited talks** throughout Europe, China and the USA – including EGU and AGU. As a lead author on several AMAP reports, my work directly **informs the Arctic nations** at a ministerial level. For more than a decade, I have been a **regular columnist** at the Norwegian newspaper Klassekampen, for which I have written over 90 times. My public outreach activities were recognized in 2021, when I was **awarded the Fægri memorial prize** for popular scientific communication.