

DR. MARA Y. MCPARTLAND

Institut für Earth System Science and Remote Sensing
University of Leipzig
Talstr. 35, 04103 Leipzig, Germany
mara.mcpartland@awi.de
<https://mymcpartland.github.io/website/>

EMPLOYMENT

University of Leipzig Institute for Earth Systems Science & Remote Sensing, Leipzig, Germany
Postdoctoral Researcher March 2026 – Present
Supervisor: Prof Dr. Ana Bastos

Alfred Wegener Institute for Polar and Marine Science (AWI), Potsdam, Germany
Postdoctoral Researcher 2022 – January 2026
Parental leave period June 2024 – July 2025
Supervisor: Prof. Dr. Thomas Laepple

EDUCATION

University of Minnesota, Minneapolis, Minnesota 2017 – 2022
PhD, Geography, Environment & Society
Advisor: Dr. Scott St. George
Dissertation: *What do trees remember? Disentangling climate, biological, and disturbance signals from tree-ring time series*

University of Minnesota, Saint Paul, Minnesota 2015 – 2017
M.S., Natural Resources Science and Management
Advisor: Dr. Rebecca A. Montgomery
Thesis: *Response of boreal peatland ecosystems to global change: A remote sensing approach*

Bennington College, Bennington, Vermont 2008 – 2012
B.A., Liberal Arts
Advisor: Dr. Kerry Woods
Thesis: *Forests and Time: Forest composition as a function of stand age*

PUBLICATIONS

Peer-reviewed

McPartland, M. Y., Lovato, T., Koven, C. D., *et al.* CMIP7 Data Request: Earth System Priorities and Opportunities. *Geoscientific Model Development*. (2026) [10.5194/gmd-19-2849-2026](https://doi.org/10.5194/gmd-19-2849-2026)

Dolman, A. M., **McPartland, M. Y.**, Felis, T., & Laepple, T. (2026). Strontium to calcium ratio and oxygen isotopic coral records can exaggerate past decadal tropical climate variability. *Communications Earth & Environment*, 7(1), 308. [10.1038/s43247-026-03465-4](https://doi.org/10.1038/s43247-026-03465-4)

McPartland, M. Y., Dolman, A.M., Hébert, R., Münch, T. Laepple, T. (2025) The Colors of Proxy Noise. *Climate of the Past*. [10.5194/cp-2024-73](https://doi.org/10.5194/cp-2024-73).

McPartland, M. Y. (2024). Decadal-scale variability and warming affect spring timing and forest growth across the western Great Lakes region. *Intl. Journal of Biometeorology*. [10.1007/s00484-023-02616-y](https://doi.org/10.1007/s00484-023-02616-y)

McPartland, M. Y., Dolman, A. M., & Laepple, T. (2024). Separating Common Signal from Proxy Noise in Tree Rings. *Geophysical Research Letters*, 51(13). [10.1029/2024GL109282](https://doi.org/10.1029/2024GL109282)

McPartland, M. Y., St. George, S., Pederson, G. T., & Anchukaitis, K. J. (2020). Does signal-free detrending increase chronology coherence in large tree-ring networks? *Dendrochronologia*, 63: 1125 – 7865. [10.1016/j.dendro.2020.125755](https://doi.org/10.1016/j.dendro.2020.125755)

McPartland, M. Y., Montgomery, R. A., Hanson, P. J., Phillips, J. R., Kolka, R., Palik, B. (2020). Vascular plant species response to warming and elevated carbon dioxide in a boreal peatland. *Environmental Research Letters*. [10.1088/1748-9326/abc4fb](https://doi.org/10.1088/1748-9326/abc4fb)

Kattge, J, Bönisch, G, Díaz, S, [et. al. including **McPartland, M.Y.**] (2020) TRY plant trait database – enhanced coverage and open access. *Global Change Biology*. 26: 119– 188. [10.1111/gcb.14904](https://doi.org/10.1111/gcb.14904)

McPartland, M.Y., Falkowski, M.J., Kane, E.S. et al. (2019). Characterizing Boreal Peatland Plant Composition and Species Diversity with Hyperspectral Remote Sensing. *Remote Sensing*, [10.3390/rs11141685](https://doi.org/10.3390/rs11141685).

McPartland, M. Y., Kane, E. S., Falkowski, M. J., Kolka, R., Turetsky, M. R., Palik, B., & Montgomery, R. A. (2018). The response of boreal peatland community composition and NDVI to hydrologic change, warming and elevated carbon dioxide. *Global Change Biology*. 25(1), 93-107. [10.1111/gcb.14465](https://doi.org/10.1111/gcb.14465)

Under review

Tomlin, J.M., Edgar, C., Serocki, E., Euskirchen, E. S., Kane, E.S., **McPartland, M.Y.**, et al. Quantifying Methane Emissions from a Boreal Rich Fen with Uncrewed Aerial Systems in Interior Alaska. Under review at *Journal of Geophysical Research Letters: Atmospheres*.

Zhou J., Quan, Q., Huang, W., Hanson, P.J., Ricciuto, D., Mayes, M.A., Griffiths, N.A., Salmon, V.G., Weber, S.E., Warren J.M., Norby, R.J., **McPartland, M.Y.**, et al. The fate of peatland carbon interactively determined by elevated carbon dioxide and warming. Under review at *PNAS*.

Graduate theses

McPartland, M. Y. (2022). What do trees remember? Disentangling climate, biological, and disturbance signals from tree-ring time series. (PhD, University of Minnesota).

McPartland, M. Y. (2017). Response of Boreal Peatland Ecosystems to Global Change: A Remote Sensing Approach (M.S., University of Minnesota).

TEACHING

Instructor of Record, GEOG 4002 – Environmental Thought and Practice, University of Minnesota Department of Geography, Environment & Society. I designed and taught an upper-level Geography writing course in hybrid form. Spring 2020

Teaching Assistant, FRNM 2102 – Northern Forests Field Ecology, University of Minnesota Cloquet Forestry Center. Led field exercises, graded and mentored student projects in two-week long upper-level field course. Summers 2018, 2020 & 2021

Teaching Assistant, GEOG 1403 – Biogeography, University of Minnesota Department of Geography, Environment & Society. Assistant in introductory course, graded student assignments, mentored students during individual meetings. Course taught online. Spring 2021

Teaching Assistant, BSE 2001 – Introduction to Biology Society & Environment, University of Minnesota Department of Geography, Environment & Society. Reader and grader of student work. Course taught in person. Fall 2019

AWARDS

Helmholtz Career Center POLMAR Short-term research stay grant **7700 €** 2025

University of Minnesota Doctoral Dissertation Fellowship, *“Characterizing the persistent effects of drought stress in North American forests”* **\$26,000** 2021

University of Minnesota Interdisciplinary Doctoral Fellowship, *“What do trees remember? Tree rings as archives of climate and tree growth”* **\$25,000** 2020

University of Minnesota Louise T. Dosdall Fellowship, *“What do trees remember? Tree rings as archives of climate and tree growth”* (declined) **\$25,000** 2020

Bell Museum of Natural History Dayton Fund Grant, **\$2,500** 2020

Department of Geography Research & Travel Grant, **\$1,700** 2018, 2019

Forest Resources Fellowship Award; Department of Forest Resources. University of Minnesota, Saint Paul, Minnesota, **\$18,750** 2016

Henry L. Hansen Forest Ecology Award; Department of Forest Resources. University of Minnesota. St. Paul, Minnesota, **\$18,500** 2015

SERVICE

Project Lead; CMIP7 Data Request Earth System Thematic Paper	2024 – 2026
Member; Fresh Eyes on CMIP Model Evaluation Working Group	2023 – 2026
Steering Committee; Past Global Changes (PAGES) Climate Variability Across Scales (CVAS) Working group	2022 – 2026
Board Member; Biogeography Specialty Group, American Association of Geographers	2021 – 2022
Graduate Representative; Department of Geography Unit Planning Committee	2020 – 2021
Co-chair; Department of Geography Coffee Hour Committee	2018 – 2020
Officer; Supporting Women in Geography	2017 – 2020
Geography Representative; Council of Graduate Students	2017 – 2018