

Kira Pfoch

Department of Forest and Wildlife Ecology
University of Wisconsin – Madison
pfoch@wisc.edu

Education

- 2021-present **PhD Student**
SILVIS Lab, Department of Forest and Wildlife Ecology
University of Wisconsin – Madison
Advisor: Prof. Volker C. Radeloff
Project: *Changing fire regimes due to WUI growth in Mediterranean landscapes*
- 2018-2021 **Master of Science in Global Change Geography**
Earth Observation Lab, Department of Geography
Humboldt Universität zu Berlin
Advisors: Prof. Patrick Hostert, Dr. Akpona Okujeni, Dr. Dirk Pflugmacher
Project: *Fire severity mapping with bi-temporal unmixing of Sentinel-2 data*
- 2020 **Study Exchange Program (ERASMUS+)**
Physical Geography and Ecosystem Science
Lunds Universitet
Advisors: Prof. Anders Ahlström, Prof. Lars Eklund
- 2017 **Visiting Student**
Microwave and Radar Remote Sensing
Technische Universität zu Berlin
Advisor: Andreas Reigber
- 2015-2018 **Bachelor of Science in Geography**
Earth Observation Lab, Department of Geography
Humboldt Universität zu Berlin
Advisors: Prof. Patrick Hostert, Dr. Marcel Schwieder, Prof. David Frantz
-

Research Experience

- 2021-present **Research Assistant**
SILVIS Lab, Department of Forest and Wildlife Ecology
University of Wisconsin – Madison
Advisor: Prof. Volker C. Radeloff
Project: *Global Hotspot of the Wildland-Urban Interface*
- 2018-2021 **Research Assistant**
Earth Observation Lab, Department of Geography
Humboldt Universität zu Berlin, Department of Geography
Advisors: Dr. Marcel Schwieder, Prof. Patrick Hostert

Project: *Global Satellite-based information for Grassland Management (SattGrün)*

- 2017 **Research Internship**
Department 1.4 Remote Sensing and Geoinformatics.
Research Center GeoForschungszentrum Potsdam (GFZ)
Advisors: Dr. Friedericke Koerting, Dr. Christian Rogaß, Dr. Christian Mielke
- 2017 **Research Internship**
Federal Ministry for the Environment, Nature Conservation, Construction and
Reactor Safety (Bundesministerium fuer Umwelt, Naturschutz, Bau und
Reaktorsicherheit (BMUB)), Berlin
- 2017 **Study Project**
at the GeoForschungszentrum (GFZ) in Dendrochronology
Advisor: Dr. Ingo Heinrich
-

Teaching Experience

University of Wisconsin – Madison

- 2024 Introduction to Environmental Remote Sensing (Nelson Institute)
- 2023 Forest Biometry (Department of Forest and Wildlife Ecology)

Humboldt Universität zu Berlin

- 2017, 2018 Introduction to Remote Sensing (Department of Geography)
- 2018 Study Project in Remote Sensing: Field Surveys and Remote Sensing - Coupling
Remote Sensing with Field Data (Department of Geography)
-

Advising

- 2023-2024 Emma Rae James, undergraduate student advising in remote sensing and GIS and
working on burned area mapping.
- 2016 Peer-mentoring introducing a group of seven undergraduate students
(freshman's) to college at the Humboldt Universität zu Berlin, Department of
Geography
-

Services

- 2023 **Faculty Search Committee** – Forest Ecology Hire – Department of Forest and
Wildlife Ecology at the University of Wisconsin - Madison

2022-present

Graduate Student Representative of the Department of Forest and Wildlife Ecology at the University of Wisconsin – Madison (Dr. Eric Kruger, Dr. Tim van Deelen)

Publications

Schug, F., **Pfoch, K. A.**, Pham, V., van der Linden, S., Okujeni, A., Frantz, D., Radeloff, V. C. (in review): Land cover fraction mapping across global biomes with Landsat data, spatially generalized regression models and spectral-temporal metrics, *Remote Sensing of Environment*

Pfoch, Kira A., Dirk Pflugmacher, Akpona Okujeni, and Patrick Hostert. "Mapping forest fire severity using bi-temporal unmixing of Sentinel-2 data-Towards a quantitative understanding of fire impacts." *Science of Remote Sensing* (2023): 100097.

Schug, Franz, Avi Bar-Massada, Amanda R. Carlson, Heather Cox, Todd J. Hawbaker, David Helmers, Patrick Hostert, Dominik Kaim, Neda K. Kasraee, Sebastian Martinuzzi, Miranda H. Mockrin, **Kira A. Pfoch**, Volker C. Radeloff. "The global wildland–urban interface." *Nature* (2023): 1-6.

Schwieder, Marcel, Maximilian Wesemeyer, David Frantz, Kira Pfoch, Stefan Erasmi, Jürgen Pickert, Claas Nendel, and Patrick Hostert. "Mapping grassland mowing events across Germany based on combined Sentinel-2 and Landsat 8 time series." *Remote Sensing of Environment* 269 (2022): 112795.

Schwieder, Marcel, Marion Buddeberg, Katja Kowalski, **Kira Pfoch**, Julia Bartsch, Heike Bach, Jürgen Pickert, and Patrick Hostert. "Estimating grassland parameters from Sentinel-2: A model comparison study." *PFG–Journal of Photogrammetry, Remote Sensing and Geoinformation Science* 88 (2020): 379-390.

Conferences

Franz Schug, Avi Bar-Massada, Amanda R Carlson, Heather Cox, Todd J. Hawbaker, David Helmers, Patrick Hostert, Dominik Kaim, Neda K Kasraee, Sebastian Martinuzzi, Miranda H Mockrin, **Kira A. Pfoch**, Volker Radeloff (2023): The global wildland-urban interface and wildfires near people, NASA Carbon Cycle & Ecosystems Joint Science Workshop, May 2023 (USA)

K. Pfoch, Franz Schug, Volker Radeloff (2022): Mapping the Wildland-Urban Interface in Mediterranean ecoregions with a spectral mixture analysis of Landsat imagery, AGU 2022 (USA)

Dirk Pflugmacher, Jan Hemmerling, **K. Pfoch**, Akpona Okujeni, Patrick Hostert (2022): Mapping and characterizing forest fires in Central European forests using Sentinel-2 and Landsat time series, ForestSAT 2022 (Germany)

Marcel Schwieder, David Frantz, **K. Pfoch**, Patrick Hostert (2019): Analysis-Ready-Data for the derivation of grassland information in Germany (GERMAN: Analysis-Ready-Data für die Ableitung von Grünlandinformationen in Deutschland), DLR-Symposium: “Neue Perspektiven der Erdbeobachtung” (Germany)

K. Pfoch, Marcel Schwieder, Patrick Hostert (2019): Grassland use intensity metrics from Sentinel-1 and Sentinel-2 data, ESA 9th advanced training course on land remote sensing: agriculture, Louvain-la-Neuve (Belgium)

Marcel Schwieder, David Frantz, David Loibl, **K. Pfoch**, Patrick Hostert (2019): Grassland use intensity metrics from Sentinel-1 and Sentinel-2 data, ESA Living Planet Symposium 2019, Milan (Italy)

Reviewing Activities

Elsevier Remote Sensing of Environment

Awards

2024 Joon Lee Award to support graduate students majoring in Forestry with a recent first co-author publication in the Department of Forest and Wildlife Ecology University of Wisconsin-Madison

2023 Hastings Award for an outstanding female student in the Department of Forest and Wildlife Ecology University of Wisconsin-Madison

2020 ERASMUS+ scholarship for a study exchange program at Lund University

2019 European Commission Student Grant for attending ESA Living Planet Symposium

Certificates

2024 L&S Teaching Assistant Training (UW-Madison)

2023 Delta (UW-Madison) Mentoring Seminar

2021 TOEFL Test of English as Foreign Language

2019 UNiCert® III in English C1 at the language center, Humboldt Universität zu Berlin

2019 European Space Agency (ESA) 9th Advanced Training Course on Land Remote Sensing: Agriculture, Université catholique de Louvain, Belgium

Skills

R, Python

QGIS, ArcGIS Pro

ENVI

FORCE (Framework for Operational Radiometric Correction for Environmental monitoring)

Language Proficiency

German	native
English	advanced (fluent in writing and speaking)
French	beginner
Swedish	beginner