

Dr. Ulrike Schlägel

Research Interests

I have a passion for statistics and mathematics, as well as nature in general and birds in particular. I put this to work to answer questions at the intersection of movement ecology, community ecology, and quantitative ecology. In particular, I'm interested in better understanding animal space use strategies and how these affect community composition, and in providing the statistical methods for the data analyses needed in this endeavour.



Education

2015 PhD in Applied Mathematics, University of Alberta, Edmonton, Canada

2008 Diplom (equiv. MSc) in Mathematics, Bielefeld University, Germany

Employment History

Since 01/2021 Junior research group leader (DFG Emmy Noether Programme),
University of Potsdam, Institute for Biochemistry and Biology, Germany

10/2015 – 12/2020 Postdoc in the project "BioMove", University of Potsdam,
Plant Ecology and Nature Conservation, Germany

06 – 09/2015 Postdoc, DAAD returning scientists programme,
Senckenberg Biodiversity and Climate Research Centre, Frankfurt, Germany

01 – 06/2009 Research assistant, Bielefeld University,
Research Centre for Mathematical Modelling, Germany

Research Grants

2020 DFG Emmy Noether junior research group, ca. 1.6 m EUR (2nd phase pending positive midterm evaluation)

Scholarships & Awards

2015 German Academic Exchange Service (DAAD) postdoctoral stipend (Returning Scientists program)

2013 Josephine Mitchell Graduate Scholarship, Department of Mathematical and Statistical Sciences, University of Alberta

2009–2013 iCORE Graduate Recruitment Scholarship in Information and Communications Technology

2009 PIMS International Graduate Training Centre in Mathematical Biology Fellowship

2005–2008 Scholarship holder of the “Studienstiftung des deutschen Volkes” (German National Academic Foundation)

Publications (selected)

Nathan R, Monk CT, Arlinghaus R, Adam T, Alós J, Assaf M, Baktoft H, Beardsworth CE, Bertram MG, Bijleveld AI, Brodin T, Brooks JL, Campos-Candela A, Cooke SJ, Gjelland KØ, Gupte PR, Harel R, Hellström G, Jeltsch F, Killen SS, Klefoth T, Langrock R, Lennox RJ, Lourie E, Madden JR, Orchan Y, Pauwels IS, Říha M, Roeleke M, **Schlägel UE**, Shohami D, Signer J, Toledo S, Vilik O, Westrelin S, Whiteside MA & Jarić I (2022). Big-data approaches lead to an increased understanding of the ecology of animal movement. *Science* **375**:eabg1780.

Schlägel UE, Grimm V, Blaum N, Colangeli P, Dammhahn M, Eccard J, Hausmann SL, Herde A, Hofer H, Joshi J, Kramer-Schadt S, Litwin M, Lozada-Gobilard SD, Müller MEH, Müller T, Nathan R, Petermann JS, Pirhofer-Walzl K, Radchuk V, Rillig MC, Roeleke M, Schäfer M, Scherer C, Schiro G, Scholz C, Teckentrup L, Tiedemann R, Ullmann W, Voigt C, Weithoff G & Jelsch F (2020). Movement-mediated community assembly and coexistence. *Biological Reviews* 95:1073-1096.

Schlägel UE, Signer J, Herde A, Eden S, Jeltsch F, Eccard JA & Dammhahn M (2019). Estimating interactions between individuals from concurrent animal movements. *Methods in Ecology and Evolution* 10:1234–1245.

Jeltsch F, Grimm V, Reeg J & **Schlägel UE** (2019). Give chance a chance: from coexistence to coviability in biodiversity theory. *Ecosphere* 10(5):e02700.

Crawford M, Jeltsch F, May F, Grimm V & **Schlägel, UE** (2018). Intraspecific trait variation increases species diversity in a trait-based grassland model. *Oikos* 128:441–455.

Supervision PhD Students & Postdocs

Ongoing: 1 PhD student, 1 PhD student (as co-supervisor), 1 postdoc

Academic and Community Service (selected)

- Co-secretary, Special Interest Group Movement Ecology of the British Ecological Society, since 2019
- Scientific staff representative, Commission of Equal Opportunity, Faculty of Science, University of Potsdam, since Oct 2022
- Scientific staff representative, Institutional Council, Institute of Biochemistry and Biology, University of Potsdam, 2020 – 2022
- Conference session organisation at the Annual Meeting of the Ecological Society of Germany, Austria and Switzerland, Münster 09/2019 and Marburg 09/2016