Job Announcement

Young, modern, and research oriented... the University of Potsdam has firmly established itself within the scientific landscape since its founding in 1991. Nationally and internationally renowned scientists teach and perform research here at Brandenburg's largest university. The University of Potsdam is successful in acquiring third-party funds, delivers outstanding performance in technology and knowledge transfer, and has a very service-oriented administration. With about 21,000 students studying at three campuses – Am Neuen Palais, Griebnitzsee and Golm – the University of Potsdam is a prominent economic factor and engine of development for the region. The University of Potsdam has a total of over 3,000 faculty and staff members and is located in one of Germany’s most scenic areas.

The University of Potsdam, Faculty of Science, Institute of Biochemistry and Biology invites applications for the following positions in the DFG-funded Emmy Noether junior research group “Movement upscaled: From behavioural responses to population dynamics of interacting animal species (MoveUP)”:

**Academic Staff Member**

**PhD student - Requisition No.: 377/2020**

**Postdoc - Requisition No.: 378/2020**

in statistical movement ecology

The positions are available from January 1st 2021. The salary is determined by the collective bargaining agreement for public employees in Germany (TV-L 13 Ost). The position PhD student is for 26 hours per week (65% of a full-time contract), the position Postdoc is for 40 hours per week (100% of a full-time contract). These are temporary positions limited to a term of 3 years in accordance with Section 2 subsection 1 of the Academic Fixed-Term Contract Law (WissZeitVG).

**Project & environment**

Interspecific interactions between animals, such as competition, predation, and mutualism, are key to their local population and community dynamics. At the community level, which is pertinent to species distributions, biodiversity patterns, and conservation, interactions are typically considered aggregated as effects of species’ densities on each other. However, interactions occur first and foremost at the individual level and through behaviour. In MoveUP, we aim to synergize the two perspectives, focusing on potentially competitive interactions with a spatiotemporal footprint at the behavioural level. The two open positions relate to the objective of establishing suitable statistical methodology for quantifying fine-scale interactions based on high-quality movement data.

The project is based at the University of Potsdam in the context of a newly established junior research group led by Ulrike Schlägel. You will have the opportunity to become associated to the DFG-funded research training group BioMove (www.biomove.org) and to participate in its qualification program. The University of Potsdam is among the top 30 in the Times Higher Education Ranking of Young Universities. Potsdam is an attractive city that is situated at the banks of the River Havel (including many lakes), features a large ensemble of parks and palaces that are part of an UNESCO world heritage site, and is well connected by public transport to the multicultural capital Berlin, which it directly borders.
**Doctoral researcher**
Modern movement data (such as those arising from the ATLAS telemetry system: [https://youtu.be/a6wziXsHvTM](https://youtu.be/a6wziXsHvTM)) often have a temporal resolution that ranges in the seconds (or even below). These provide great opportunities for studying movement behaviour in detail but also entail challenges for analysis, e.g. strong temporal autocorrelation in movement characteristics. The goal of your work is to develop, improve, and test methodology for analysing high-frequency movement data.

**Your qualifications**
- MSc degree (or equivalent) either in an ecological discipline (e.g. ecology, zoology, behavioural ecology) with a quantitative focus (e.g. statistics, modelling) or in a quantitative discipline (e.g. statistics, applied mathematics) paired with a strong interest in topics such as ecology, movement ecology, behavioural ecology. Candidates about to finish their MSc can submit a current and informative study record.
- Good knowledge of statistics (or probability theory, if you come from the mathematical side)
- Beneficial but not strictly necessary are experience with movement data analysis, time series analysis, spatial statistics, or similar
- Either previous experience with R or other programming skills
- Proficiency in English and very good writing skills; Knowledge of German not necessary
- Strong interest in interdisciplinary research and the willingness to engage in scientific exchange with other disciplines

**Postdoctoral researcher**
The objective of your work is to establish a portfolio of methods for the robust quantification of between-individual interactions, such as attraction and avoidance, from fine-scale movement data for varying scenarios of interactions, especially those expected between potential competitors. A further aim is to make these methods available, e.g. within existing or new R packages.

**Your qualifications**
- PhD either in an ecological discipline (e.g. ecology, zoology, behavioural ecology) with a strong quantitative focus (e.g. statistics, modelling) or in a quantitative discipline (e.g. statistics, applied mathematics, biostatistics) paired with a strong interest in topics such as ecology, movement ecology, behavioural ecology
- Statistical expertise and preferably experience with one or more of these: statistical method development, movement data analysis (e.g. resource- or step-selection analysis), time series analysis (e.g. Hidden Markov models), spatial statistics, or similar
- Programming skills (ideally but not necessarily in R)
- Strong documented ability to publish in peer-reviewed journals
- Proficiency in English and excellent writing skills; Knowledge of German not necessary
- Strong interest in interdisciplinary research and the willingness to engage in scientific exchange with other disciplines

If you have any questions, please contact Dr. Ulrike Schlägel (ulrike.schlaegel@uni-potsdam.de).

Under the laws of the federal state of Brandenburg, employees under this contract are permitted to dedicate at least 33% of their contract time for their scientific qualification.

The University of Potsdam aims to increase the proportion of women in research and teaching and therefore invites qualified applicants to apply. The University of Potsdam values the diversity of its members and pursues the goals of equal opportunities regardless of gender, nationality, ethnic and social origin, religion/belief, disability, age, sexual orientation or identity. In the case of equal suitability, women within the meaning of Section 7 (4) BbgHG and
severely disabled people will be given preferential consideration. Applications from abroad and from persons with a migration background are expressly welcome.

Applicants should send their application materials (cover letter, CV with contact information of two persons who can provide a reference, copies of relevant degrees, and a statement (max 1 page for doctoral position; 1-2 pages for postdoc position) explaining your interest in and particular skills for the position) by September 13th, 2020 at the latest in electronic form as a single pdf file to ulrike.schlaegel@uni-potsdam.de with the subject line, “Job Title – requisition number.” Interviews are envisioned to take place September 21st – October 2nd, 2020 (in person or via video conference depending on situation and your current location).

Potsdam, August 18, 2020