Postdoctoral fellowship blending population and individual processes using ecological data

The Department of Biology at the University of Saskatchewan and Department of Statistics at the University of Missouri are seeking a 2-year postdoctoral fellow to lead a multi-part project focused on population and movement ecology of migratory birds.

This project will involve building hierarchical statistical models for populations and movements that integrate GPS and acceleration data collected from hundreds of individuals during the period 2017-2023. These models will provide the basis for inference about the extent to which environmental conditions (e.g., climate and land use change) at varying space and time scales explain movements, behaviour, and population dynamics, as well as optimal sampling design. We also anticipate that results will provide utility for other researchers to customize these frameworks according to their research questions and device types.

There will be opportunities to explore related research questions and collaborate on several projects in movement and population ecology in the Weegman lab and spatio-temporal statistical modeling and machine learning/artificial intelligence in the Wikle lab.

Minimum qualifications:

Ph.D. in statistics, wildlife ecology or closely related field

Skills in Program R and/or Python

Demonstrated excellence in verbal and written communication

Ability to work independently and as part of a research team

Preferred qualifications:

Skills in JAGS, NIMBLE or Stan

Experience forming and running demographic and/or animal movement models

Knowledge and experience in avian ecology

Salary and benefits: Approximately $65,000 Canadian per year plus benefits

Start date: 1 May-15 Aug 2024

Last date to apply: 1 Dec 2023

To be considered for this position, please send a cover letter, curriculum vitae, research statement and contact information for three references to Drs. Mitch Weegman (mitch.weegman@usask.ca) and Chris Wikle (wiklec@missouri.edu).