

Postdoctoral Associate in Statistical Ecology at Western University

Background and Duties:

A position is open for a Post-Doctoral Associate (PDA) in the Department of Statistical and Actuarial Sciences at Western University. The PDA will work on two projects within Dr. Simon Bonner's research group.

1. The PDA will develop new methods for modeling social behaviour from mark-recapture data. Existing models typically assume that individuals in a population behave and are captured independently. These assumptions will be violated if animals are linked through groups formed through family bonds, mating colonies, or herds that may or may not be observed. The PDA will develop, assess, and implement new statistical methodology to account for potential dependence between individuals and further to study the factors that create and maintain social groups. Application will focus primarily on modeling the movements of social birds between nesting colonies.
2. The PDA will assist in developing statistical methodology for analysing data from the Motus wildlife tracking system. Motus is a multi-centre project supported by Environment Canada and coordinated by Bird Studies Canada that comprises an array of radio telemetry towers deployed across North, Central, and South America and a centralized database system for storing and disseminating tracking data. The system employs novel VHF nano-tags to monitor the movements of small animals and is currently being used by researchers at more than 90 universities, governmental agencies, and non-governmental research centres. The PDA will collaborate with other Motus researchers to identify analytic needs, develop and assess new statistical methodology, and create software which can be integrated into the Motus Research Platform developed by Bird Studies Canada. Further information about Motus is available at <http://motus-wts.org/>.

The PDA will also be responsible for writing and submitting papers and presenting her work at scientific meetings, and is expected to take a leadership role in Dr. Bonner's research group. This may include mentoring for MSc and PhD students and assisting on other research projects as required.

Qualifications:

The PDA should be an independent worker with a PhD in statistics or in biology/wildlife management with a strong background in quantitative methods. Knowledge of mark-recapture methodology and Bayesian inference; statistical computing in R; strong communication skills; and the ability to work with applied researchers are absolute necessities. Experience programming in other computer languages including BUGS/JAGS, STAN, C, or Fortran and experience with cluster computing would be an asset and an interest in ecology and ornithology is preferred.

Term:

The PDA will be housed in the Department of Statistical and Actuarial Sciences and is expected to start between September and January 2016. Support is available for two years.

Compensation:

\$50,000/year plus benefits

Application:

Please submit a letter of intent, curriculum vitae, and contact information for three references to:

Dr. Simon Bonner

Assistant Professor of Environmetrics/Co-Director MMASc

Department of Statistical and Actuarial Sciences/Department of Biology

Western University

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Review of applications will begin August 26 and continue until the position is filled.