



## Post-Doctoral Opportunity – Available Immediately Community and movement ecology to understand multi-host disease transmission

We are seeking a highly motivated and energetic individual to join our research group in Animal Health Ecology starting **September 2023**, as a **post-doctoral fellow (PDF)**. This position is based at the Faculty of Veterinary Medicine, University of Calgary. The successful applicant will work under the primary supervision of Dr. Mathieu Pruvot (<https://vet.ucalgary.ca/contact-us/mathieu-pruvot>) in close collaboration with members of our research group. Our group uses epidemiological and ecological methods to understand the changes in animal health and diseases at the interface between wildlife, livestock, and humans.

**Projects:** The post-doctoral fellow will be expected to work on and advance multiple projects ranging from the statistical consulting on student project to development of advanced ecological models:

- Wild boar ecology:
  - Density estimates using camera trap data and potentially integrating GPS collar and drone flight data
  - Developing new integrated models to estimate contact rates using GPS and camera trap
  - Applying integrated population models and removal models to assess efficacy of wild pig control in Alberta
- Liver fluke ecology: modeling distribution of host and parasite in a National park to guide control, and evaluating impacts on Moose and elk populations.
- Ecology of Rodent health and pathogens:
  - Applying Bayesian SECR models in Nimble to diverse rodent community studies (Cambodia, Columbia/Bolivia, Alberta)
  - Developing disease-structure population models to assess the effect of land-use on community and pathogen dynamics.
  - Applying the IPM<sup>2</sup> modeling framework to a rodent system in Alberta
- Statistical consulting on a project on colistin resistance in the poultry sector in Indonesia, assessing occurrence of antimicrobial resistance in poultry, farmers, and general community.

**Qualifications:** This research will require a solid expertise in statistics, strong skills in quantitative ecology, strong understanding of concepts in epidemiology and disease ecology, a preferably a broad understanding of determinants of wildlife health. The ideal candidate will either have a PhD in Statistics with a strong research experience in ecology or epidemiology, or a PhD in quantitative ecology with interest in disease ecology. The PDF will collaborate across multiple projects and with diverse stakeholders and partners, so interpersonal skills and experience working in multi-disciplinary teams is desirable.

The successful candidate will have opportunities to be a member of the Wildlife Health Ecology Research Group (<https://vet.ucalgary.ca/research/research-groups/wildlife-health-ecology/home>), the Host-Parasite Interactions group (<http://www.ucalgary.ca/hpi/>), and have opportunities to interact with the Canadian Wildlife Health Cooperative (based at UCVM, <http://www.cwhc-rscf.ca>), and will be encouraged (and provided opportunities) to establish collaboration with international experts.

**Salary:** Salary is \$55,000/year for 2 years.

**Applying:** Applications will be reviewed immediately with the intent of filling these positions as soon as possible, as close as possible to September 2023.

Email a letter of introduction describing your research interests, experience, and motivation for applying to this position, as well as a current CV, a copy of transcripts, and 3 references to:

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