

POSITION STATEMENT

Position Title: Postdoctoral Fellow (*Colorado State University, Department of Fish, Wildlife, & Conservation Biology*)
Location: Fort Collins, Colorado
Salary: \$55,000
Start date: Negotiable (ideally Jan. 2nd, 2019)
Description: Full-time, one-year initial term with strong possibility for extension depending on performance and project funding. The position is funded entirely from federal sources under a USDA Agreement.

DUTIES

The successful candidate will work in collaboration with scientists from Colorado State University (CSU) and USDA-APHIS out of the National Wildlife Research Centre (NWRC) in Fort Collins, CO. The CSU scientist (PI: Dr. George Wittemyer) is a terrestrial ecologist focusing on mammal conservation and behaviour, with an emphasis on analysis of spatially explicit population processes. The NWRC scientist (PI: Dr. Kim Pepin) is an applied quantitative disease ecologist with emphasis on understanding spatial processes of disease spread for risk assessment and control. The direction of this research position will be crafted to take advantage of the applicant's expertise, the capabilities of the CSU and NWRC science team, and existing NWRC datasets.

As part of a broader collaboration with researchers from the University of Florida and University of Georgia, we have collected tracking coupled with contact data on feral swine and cattle at two sites. Concurrently with these data, we also collected genetic data on two microbes in this system. This is an excellent opportunity to develop a framework for understanding and managing spillover at the wildlife-livestock interface, from data that are typically unavailable. The candidate will lead research directions for analyses of these and other data. Research directions may include:

- 1) Developing methods for linking movement behavior with contact structure and pathogen transmission trees to predict spillover at the wildlife-livestock interface.
- 2) Predicting how interventions (i.e. population management) affect movement, contact structure and disease risk using analysis of empirical data and data-parameterized models.
- 3) Developing new methods for linking animal movement and landscape properties to contact networks and disease transmission.
- 4) Developing mechanistic animal movement models that examine how management can influence space use, contact networks and disease risk.

REQUIREMENTS

1. Ph.D. degree in a pertinent biological, physical, or computer science field by start date of position.
2. Strong publication record.
3. Demonstrated competency in statistical analysis and/or modeling.

DESIRED ATTRIBUTES

1. Experience in disease modeling; particularly fitting models to data to estimate contact structure or related epidemiological quantities.
2. Experience in animal movement modeling or spatial processes.
3. Experience with network theory.
4. Experience in analyzing large datasets.
5. Demonstrated experience working in collaborative research settings.

APPLICATION PROCEDURE

Please upload a CV and cover letter to <http://jobs.colostate.edu/postings/62337>. The cover letter should include a statement of the applicant's areas of interest regarding ecological research on spatial disease ecology and/or animal movement modelling, including the applicant's perception of the most important research questions in this discipline, the connections between these areas of research and the applicant's prior work, and an account of the applicant's skills in statistics, modelling, and other pertinent quantitative methods. The letter should also include names and contact information for three professional references (references will not be contacted without prior notification of candidates).

The name of each file should contain the last and first name of the applicant (e.g., Doe.Jane.pdf).

For full consideration submit application by December 15, 2018. Upload application to: <http://jobs.colostate.edu/postings/62337>

For inquiries, please contact Dr. George Wittemyer (g.wittemyer@colostate.edu) via e-mail with "Movement and Disease Postdoc" in the subject line.

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