

Ph.D. Assistantship, Cornell University, Ithaca, NY  
Spatial Capture-Recapture of Moose Populations in New York

A Ph.D. position is available with the New York Cooperative Fish and Wildlife Research and the Department of Natural Resources at Cornell University. The candidate will design and implement a spatial capture-recapture (SCR) study of moose in New York to estimate population density. This method will employ scat detection dogs to survey moose scat, which will then be used to genetically identify individuals. The SCR models that are developed will be used to study processes such as resource selection, movement, space usage, and landscape connectivity, contributing to moose management by providing inference on the impacts of land-use patterns, climate, disease, and interspecific interactions on population processes. The student will make recommendations regarding efficient survey designs that incorporate both occupancy-level survey data (possibly including remotely-operated trail cameras, observations from hunter surveys, etc.) and non-invasive genetic sampling so that rigorous range-wide surveys can be conducted to estimate abundance and density. The project, in collaboration with the New York State Department of Environmental Conservation and The Wildlife Conservation Society, will also focus on developing broader management and population goals for moose in New York, including the characterization of stakeholder concerns for population-level thresholds.

Graduate stipend provided is approximately \$32,000/year. The assistantship also provides tuition and health insurance.

Qualifications: Successful applicants will have a thesis-based M.S. degree and an outstanding academic background in Ecology, Wildlife Biology, Natural Resources, Statistics or a closely related field. The student should be independent and motivated to work with a broad range of external collaborators. Successful applicants will possess strong writing and personal communication skills, as well as a desire to conduct quantitative science for applied resource management needs. Preference will be given to applicants with previous modeling and computational skills as well as previous experience leading field crews and conducting fieldwork. Proficiency with program R, ArcGIS, and knowledge of statistical modeling used to describe population dynamics from mark-recapture is desired. Minimum GPA of 3.4, competitive GRE scores, and a valid U.S. driver's license is required.

Potential candidates should send 1) a letter detailing your research interests and experience, an explanation of your academic interests and reasons for undertaking graduate work, including the relation to your professional goals 2) a CV 3) transcripts (unofficial is fine) 4) GRE scores, and 5) contact information for 3 references to Dr. Angela Fuller ([angela.fuller@cornell.edu](mailto:angela.fuller@cornell.edu)) by March 10, 2015.

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