Two funded PhD Graduate Assistantships to Study Meso-Mammal Population Ecology

Description

I am seeking two graduate students to study meso-mammal spatial population ecology in the state of Rhode Island. The expected start date is summer (early June, 2020) to start initial pilot field work and outlining a research proposal for core field work to take place in the winter. Admission to the graduate school will officially start in the Fall semester (September, 2020). The successful applicants will pursue a PhD in the Biological and Environmental Sciences (BES) Graduate Program within the Ecology and Ecosystem Sciences Specialization (https://web.uri.edu/cels-gradprograms/bes/ees/) at the University of Rhode Island. The BES graduate program includes interdepartmental graduate groups within the College of the Environment and Life Sciences (http://web.uri.edu/cels/) and is designed to provide students with a strong, interdisciplinary, and integrative learning environment. Both research projects will be carried out in close association with Rhode Island's Department of Environmental Management, Division of Fish and Wildlife.

Semi-Aquatic Mammal Project: This project is aimed at quantify the spatial distribution of semi-aquatic mammals (Muskrat, Beaver, and River Otter) and effects of anthropogenic and habitat factors. The student will leverage past surveys to design and implement a sign survey that is carried out in multiple winters (and likely the summer) within the Blackstone, Quinebaug, Pawtuxet River, and Pawcatuck watersheds. These detection/non-detection data will be used in an occupancy modeling framework to better understand limiting habitat factors to help guide possible habitat and harvest management decision making.

Fisher Project: This project is aimed at evaluating resource selection, fine-scale movement, and demographic parameters (occurrence and abundance) of fisher in the state of Rhode Island to understand the factors that promote and limit fisher populations in this unique landscape (e.g., high anthropogenic footprint and high forest cover). The student will collect detailed spatial and demographic data on fisher in Rhode Island through the capture and GPS collaring of individual animals and state-wide non-invasive camera trapping; the student will have three-years of initial camera trap survey data. The student will develop statistical models to estimate fisher density by integrating data sources.

General Qualifications

Applicants must have completed a bachelor's and masters' degree in wildlife biology, ecology, conservation biology, or a closely related field. Preference will be given to applicants that 1) demonstrate excellent oral and written communication skills (via peer-reviewed publications and research/management talks), 2) have demonstrated a strong interest in statistical modeling and population ecology, 3) have a keen interest to work closely with natural resource agencies, and 4) the ability to work independently and collaboratively and to provide leadership to research assistants and undergraduates working in the field and the lab.

Semi-Aquatic Mammal Project: Preference is for applicants with field experience surveying via animal sign (e.g., tracks, spoor) and leadership experience in the field, experience kayaking and are comfortable navigating waterways.

Fisher Project: Preference is for applicants with mammal trapping and handling experience. Experience working with camera trap and GPS data, resource selection functions, capture-recapture models, and occupancy models is a plus.

Assistantship Details

The students will be advised by Dr. Brian Gerber (https://web.uri.edu/gerberslab/) in the Department of Natural Resources Science. Assistantship stipends are approximately $20,000/academic year (includes a mixture of Research and Teaching Assistantship). Tuition is covered and a summer stipend available.

Application Instructions

Email a cover letter (1-2 pages, as a PDF) that summarizes your interest and prior experience with explicit statements regarding the qualifications listed above. If applying to both positions, make your preference clear. Please also include a current CV, unofficial B.S. and M.S. transcripts, and contact information for 3 references as a single PDF attachment to Dr. Brian Gerber at bgerber@uri.edu. Please provide 1-2 scientific writing samples (e.g., published manuscripts) as PDF attachments. Use an email subject line that is clear to which project(s) you are applying to. Applications will be reviewed starting around 2/15 and continue until suitable candidates are found.