Fall 2024 Ph.D. Position Announcement - Utah State University

Position title: Ph.D. Graduate Research Assistantship (GRA), Mountains as disease refugia for moose in a changing world

Position description: The GRA will improve understanding of how animals can use spatial refugia, behavioral adaptations, and/or movement-related strategies to adapt to warming climates and increased parasite exposure. Research will focus on moose and their parasites (winter ticks, arterial worms) at the southern end of their range in the Wasatch Mountains, Utah. Key aims include: 1) assessing how climate and parasite loads relate to moose dispersal, movement, and habitat selection; 2) understanding how adaptive strategies in movement can affect moose reproduction, survival, and population persistence; and 3) developing future projections of how moose spatial distributions will change in response to climate and parasites.

The GRA will conduct field work to monitor moose with GPS radio-collars to understand movement and demography in relation to parasite loads. They will monitor moose movement using ground-based surveys and conduct field examinations of moose mortalities to determine likely cause of death. In addition, the GRA will build and analyze advanced habitat selection, movement, and population models of moose in response to changing climate conditions and parasite numbers. Research will be conducted in collaboration with agency scientists and managers at the Utah Division of Wildlife Resources. This work will also be in collaboration with another GRA studying how climate and habitat factors relate to parasitism.

Supervisors: Dr. T.J. Clark-Wolf, Department of Wildland Resources and Ecology Center; Dr. Sara Weinstein, Department of Biology, Utah State University

Stipend/Salary: $25K plus benefits, full tuition/fees waiver, and travel stipend

Start date: August 2024

Minimum qualifications:

1. MSc in wildlife biology, ecology, conservation biology, or related field
2. Significant experience conducting field-based wildlife research
3. Proficiency in R, Python, or other programming languages and geospatial software (GIS)
4. Strong background in statistical/mathematical techniques in ecology/biology
5. Excellent written and personal communication skills
6. Ability to work both independently and collaboratively with agency scientists and wildlife technicians
7. Experience analyzing, presenting, and publishing scientific results

Desired qualifications:

1. Demonstrated experience in monitoring ungulate movement and investigating mortality sites, as well as strong teamwork skills in the field.
2. Background in Bayesian statistics, implemented in JAGS, Nimble, Stan, etc.
3. Strong interest in developing quantitative models linking disease, movement, and population ecology

How to Apply: Please submit a *single PDF* to t.j.clark-wolf@usu.edu titled "PhDPosition_Moose_ApplicantLastName_ApplicantFirstName". For example, if your name is T.J. Clark-Wolf, your single .pdf will be titled "PhDPosition_Moose_Clark-Wolf_T.J.pdf". This PDF should include:

1. A one-page cover letter that describes your motivations, qualifications and how this position advances your career goals.
2. A CV/resume that includes contact information (phone and email) for three references.
3. Unofficial transcripts from undergraduate and graduate education.
4. Scientific writing sample (academic paper or report written primarily by the applicant).

Applicants who are members of racial or ethnic minorities, first generation college students, from a low-income background, or identifying as women or LGBTQIA+ are strongly encouraged to apply.

We will begin reviewing on March 8, 2024 and leave the position open until filled.

Utah State University is a Research I (Extensive Doctoral) land-grant institution with a student body of over 24,000, 8 academic colleges, a school of Graduate Studies, and diverse research programs. The main campus is located in Logan, a community of 100,000 people. Logan is 85 miles north of Salt Lake City in scenic Cache Valley, a semi-rural mountain basin with nearby ski resorts, lakes, rivers, and mountains providing many recreational opportunities. The area has a low cost of living and provides a high quality of life. Learn more about Logan, UT.

Utah State is committed to cultivating a diverse, equitable, and inclusive community where different perspectives, values, cultures, and identities are acknowledged, welcomed, and valued. We seek to recruit, hire, and retain people from all walks of life who will champion excellence in education, research, discovery, outreach, and service. We believe that promoting a strong sense of community and belonging empowers and engages all members of USU to thrive and be successful. Learn more about USU.