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

Position title: Ph.D. Graduate Research Assistantship (GRA), Food Web Ecology and Trophic Cascades

Position description: The GRA will improve understanding of how large predators and climate act as forces to induce trophic cascades, structure food webs, and modify ecosystem function. Research will focus on the iconic wolf-elk-aspen community in northern Yellowstone National Park. The GRA will build and analyze integrated population and community models of wolf-elk-aspen dynamics, potentially including other carnivore, ungulate, and plant species. Key aims include: 1) assessing trophic cascades in Yellowstone by measuring the strength and dynamics of indirect effects of wolves and other carnivores on aspen; 2) developing new insights about the relative strength of top-down vs. bottom-up forces in determining herbivore and vegetation abundance; and 3) understanding the role of population stage structure in mediating the relative strength of top-down vs. bottom-up effects. Research will be conducted in collaboration with agency scientists and will involve cutting-edge analyses of several long-term datasets as well as some fieldwork in Yellowstone.

Supervisors: Dr. T.J. Clark-Wolf and Dr. Dan MacNulty, Department of Wildland Resources and Ecology Center, Utah State University.

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

Start date: Flexible, but ideally August 2024

Minimum qualifications:

1. MSc in ecology, wildlife biology, conservation biology, or related field
2. Proficiency in R, Matlab, Python, or other programming languages
3. Strong background in statistical/mathematical techniques in ecology/biology
4. Excellent written and personal communication skills
5. Ability to work both independently and collaboratively
6. Experience analyzing, presenting, and publishing scientific results

Desired qualifications:.

1. Background in Bayesian statistics, implemented in JAGS, Nimble, Stan, etc.
2. Strong interest in developing quantitative models of population and community ecology
3. Experience working collaboratively with agency and academic scientists

How to Apply: Please submit a *single PDF* to t.j.clark-wolf@usu.edu AND dan.macnulty@usu.edu titled “PhDPosition_ICM_ApplicantLastName_ApplicantFirstName”. For example, if your name is T.J. Clark-Wolf, your single .pdf will be titled “PhDPosition_ICM_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 October 30, 2023 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.