



UNIVERSITY OF  
SASKATCHEWAN



## **M.Sc. or Ph.D. position on integrative biology of wild hibernating Columbian ground squirrels.**

I am currently advertising one graduate student (either M.Sc. or Ph.D.) opening in the Evo-Eco-Energetics Lab (PI: Dr. Jeffrey Lane) in the Department of Biology, at the University of Saskatchewan. Start dates of May or September, 2022 are possible, with an earlier start being preferred. There is also the potential for a student to complete a field season as part of the field crew prior to enrolling in the graduate program at the UofS. The student will need to be successful in either external (e.g., NSERC post-graduate scholarships for Canadian citizens) or internal funding competitions (scholarship or teaching assistantship).

### **The Project: Integrative biology of hibernating Columbian ground squirrels.**

Since 2008, we have been developing a wild population of hibernating Columbian ground squirrels in Alberta's Rocky Mountains as a system in which to integrate energetic physiology, ecology and evolutionary biology. Individuals in this population hibernate for 8-9 months each year, and we have learned that hibernation is phenotypically plastic, heritable and associated with fitness. Current, graduate student-led, work on the project is investigating energy allocation to reproduction, abiotic (e.g., weather) and biotic (e.g., food abundance) influences on hibernation biology, and between-population variation in energetics and phenology. We are excited to advance these lines of investigation over the coming years, and are looking to recruit at least one student with interests in: climate change biology, evolutionary ecology, life history evolution and/or energetic physiology.

To support this project, the student will have access to dedicated research infrastructure, including a mobile laboratory trailer (housing a quantitative magnetic resonance analyzer (to measure body composition) and a field portable respirometry system (to measure metabolic rates), necessary field equipment (e.g., live traps and handling equipment). We have recently refined protocols for individual food-supplementation, enabling targeted feeding experiment. The student will have access to those protocols and equipment. The student will also have full access to the 14 year data set to address their research questions. All fieldwork will be based out of the University of Calgary's R.B. Miller Research Station (<https://research.ucalgary.ca/biogeoscience-institute/facilities/rb-miller-station>).

The successful applicant will have a GPA > 80 % (converted to the UofS' 1-100% scale) over the past two years of schooling, and a degree in a relevant discipline (e.g., ecology, environmental biology, physiology, evolutionary biology or zoology). In addition, a passion for fieldwork, wildlife ecology, and academic research as well as excellent scientific communication skills (both written and oral), statistical proficiency (or a willingness to gain it) and the ability to work productively as a member of a team (both in the field and office) is necessary. Evidence of scientific productivity (manuscripts published or in preparation, conference attendance and presentations) will be viewed favourably. This position is open to both Canadian and international students. We believe equity, diversity, and inclusion strengthen the community and enhance excellence, innovation and creativity. We, therefore, encourage members of the underrepresented groups in STEM (e.g., women, Indigenous Peoples, persons with disabilities, members of visible minorities, and diverse sexual orientation and gender identities) to apply.

If you are interested in applying, please submit a cv (including names and contact details of references), a short (< 1 pg) description of research interests and a copy of your transcripts to (unofficial or official) to [Jeffrey.lane@usask.ca](mailto:Jeffrey.lane@usask.ca). Applications will be evaluated as they're received. To ensure full consideration of your application, therefore, please submit ASAP. Any questions can also be directed to the same email address.

Thank you in advance for your interest in this position, however, only those selected for an interview will be contacted.

