

PLASTICITY TO CHANGING ENVIRONMENTS

The Wildlife Evolutionary Ecology Lab (weel.gitlab.io) is recruiting an exceptional MSc student into a collaborative, inclusive research group. The project and position are fully funded. Nevertheless, students will be encouraged and supported to compete for internal and external funding; higher GPAs and a history of publications improves competitiveness. Preference is for a Summer-Fall 2022 start date and we will be accepting applications until November 1st, 2021. We encourage all interested students to apply; we value equity and diversity in science and work to create a safe lab environment where everyone can succeed.



Project: The aim of this research project is to examine plasticity of coat colour change in snowshoe hares in response to changing snow cover (see Mills et al. 2013, PNAS). The project will focus on yearly variation in moulting rates of individuals during changes in coat-colour mismatch.

System and team: The WEEL group is part of the Biology Department at Memorial University. We are a dynamic, collaborative, question-driven research group that aims to bridge fundamental and applied questions in evolutionary, behavioural, population, and wildlife ecology. The student will be co-supervised by Mike Peers (michaeljpeers.com) a Banting post-doctoral Fellow in the WEEL group who studies ecological responses of animals to climate change.

Since 1976, hares have been monitored in the Kluane Lake region of Yukon, Canada (see Krebs et al. 2018, *J Anim Ecol.*) to understand the drivers of their population cycles. Since 2015, Mike and several colleagues have been intensively monitoring hares in the region using GPS collars equipped with accelerometers to understand their fine-scale behavior in response to climate change. The successful applicant will be free to pursue their own ideas within the themes mentioned above using the data collected at Kluane and collaborating with researchers involved.

Training Opportunity: This project will provide excellent opportunities for training and developing skills for employment or further graduate studies. For example, (1) Fundamentals: critical thinking, experimental design, writing, practicing and communicating science; (2) Analytical and lab-skills: advanced GIS, programming statistical and spatial models; and analysis of hare behaviour and ecology. The student will also be able to collaborate and participate in projects that make use of the data available, and have the potential to assist field work.

Qualifications: Applicants should have four main qualities. (1) A passion for ecological and evolutionary theory. (2) An interest, commitment, and aptitude for research in the field in all seasons – however accommodations will be made for individuals unable to conduct field work. (3) Quantitative skills in GIS, statistical programming in R, and interest in modeling. (4) And foremost, evidence of collegiality. Competitive applicants are encouraged to contact current or former members of the WEEL group to obtain an informed opinion of the potential provided by this position and environment.

To apply, please email your application to Eric Vander Wal (eric.vanderwal@mun.ca) and Mike Peers (michaeljpeers@gmail.com). We would appreciate if the application was a single *.pdf document. Please include a cover letter outlining your background, aspirations, and interests, a current CV including the names of three references, and unofficial transcripts.

Thank you in advance.

~Mike and Eric