



Position Title: Postdoctoral Fellow: Conservation Genomics

Position Overview

The Vancouver Island marmot is Canada's most critically endangered endemic mammal and has been the focus of intense conservation efforts for almost 30 years. The wild population reached a low of less than 30 individuals in 2003 but is now making a comeback through *in situ* conservation, *ex situ* captive breeding, and the release of over 600 captive-bred marmots into the wild over the last 20 years, reaching a [record high](#) of 381 in 2024.

We seek a Postdoctoral Fellow to lead a next-generation sequencing project that focuses on developing a targeted marker panel to genotype thousands of single nucleotide polymorphisms across over 1,000 individual marmots. This project will be the first to use the [soon-to-be-released](#) and fully-annotated Vancouver Island marmot reference genome currently being assembled by the Canadian BioGenome Project. Our objectives are to genotype every member of the wild and captive populations to determine population diversity, identify unique genetic lineages, monitor gene flow and dispersal within and among meta-populations, assess degrees of inbreeding, estimate pairwise relatedness, and pinpoint genomic influences on fitness traits (e.g. genome-wide association studies). This information will guide the existing conservation breeding program, the release and translocation of captive marmots, and determine reproductive success in the wild to improve ongoing recovery efforts.

The Postdoc will report to Dr. Jamie Gorrell of the University of Northern British Columbia (UNBC) and Dr. Jasmine Janes (UNBC) while also closely collaborating with representatives of the Marmot Recovery Foundation (including the Executive Director, Veterinarian, and Field Coordinator), the Wilder Institute/Calgary Zoo, the Toronto Zoo, and other biologists and stakeholders from academia and Provincial and Federal Governments. The Postdoc will be expected to engage in advanced population genomics through scientific and applied conservation lenses, publish peer-reviewed articles, and contribute to adaptive management planning as an active team member, including attending all meetings, sharing written and oral updates, and providing feedback to improve ongoing recovery efforts. The Postdoc will also be expected to share detailed and annotated scripts of all data analyses for transparency and future reproducibility.

Required qualifications:

- Ph.D. in biology, genetics/genomics, molecular ecology, and/or related fields, completed within the previous four years, or will be awarded within three months of beginning the Fellowship;
- Strong grasp of the latest methods and challenges in population/conservation genomics;

- Demonstrated experience with population genomic analyses including large and complex genomic datasets (e.g. HPC clusters, R);
- Proficiency in advanced statistics;
- Self-motivated, able to work independently and with a large team;
- Able to multitask and meet deadlines;
- Excellent written and verbal communication skills in English; and
- Legally entitled to work in Canada.

A passion for wildlife conservation and past experience collaborating with industry and government partners towards applied research are considered assets.

Location, Duration, and Salary

The successful candidate will be based at UNBC in Prince George with an ideal start date of June 2025, but no later than August 2025. Compensation for a 40-hour work week includes \$60K/year plus 4% vacation pay and competitive extended health [benefits](#) (e.g. prescription drugs, dental, life insurance). The position is funded for two years with the possibility of extension for a third year, though the initial appointment will be for one year with renewal based on satisfactory performance. This position is partly funded by Mitacs, therefore the successful candidate must not have been previously supported by a Mitacs Fellowship. Previous Mitacs support as a graduate student does not impact Postdoc eligibility.

About UNBC and Prince George

UNBC has consistently ranked in the top 3 best small universities in Canada by Maclean’s magazine for the past 18 years. The Department of Ecosystem Science and Management has 30 faculty members, MSc and PhD programs, and is a unique blend of expertise in biology, ecology, natural resources, environment, conservation, and outdoor recreation. As the gateway to northern BC, Prince George is a vibrant hub community of 90,000 people with great restaurants, microbreweries, shopping, and access to outdoor activities year-round (see www.tourismpg.com).

How to apply

Interested candidates should send a single PDF file containing a cover letter highlighting their experience and motivation, CV, proof of education, and contact information for two references to Jamie.Gorrell@unbc.ca. Please use the subject line “Marmot PDF Genomics”. Applications received by April 11, 2025 will be given full consideration but applications will be accepted until the position is filled. Our team welcomes applications from all people, especially those from underrepresented groups (e.g., visible minorities and LGBTQ2S+) though Canadian citizens and permanent residents will be given priority.

PROJECT PARTNERS

