

## **2 Fully-Funded PhD Positions: Laboratory of Quantitative Global Change Ecology, University of Toronto**

Start date: Fall 2023

### **Climate Change and Land Use Change Impacts on Host-Parasite Dynamics and Disease** (Ecological Modelling / Disease Ecology / Global Change Ecology)

Two PhD positions are available to join the Laboratory of Quantitative Global Change Ecology, (<https://www.utoronto.ca/labs/molnar/>) in the Department of Ecology and Evolutionary Biology at the University of Toronto (<https://eeb.utoronto.ca/education/graduate/>), Scarborough campus (<https://www.utoronto.ca/biosci/>), starting fall 2023. Both positions are at the interface of disease ecology, global change ecology and ecological modelling, and include theoretical, empirical, and applied aspects.

Parasite ranges, transmission seasons, transmission pathways, and host-parasite dynamics are shifting worldwide due to the impacts of climate change and land use change, with substantial implications for ecosystem, wildlife, and public health. Both PhD students will work to (i) develop new modelling frameworks for understanding, predicting, and mitigating climate change and land use change impacts on the population and community dynamics of wildlife, their interactions with parasites, and the spread of disease, and (ii) test and apply these frameworks in select model systems, ranging from the High Arctic to Central America (for some examples of our study systems, see <https://www.utoronto.ca/labs/molnar/research/>). Successful applicants will join a highly interdisciplinary environment where they will collaborate closely with both modelers and field ecologists, and where they will have ample opportunity to shape their projects into new directions.

Applicants should have strong quantitative, organizational, and writing skills, and should be highly motivated to develop/work with ecological models to help address global change challenges. To apply, please email me ([peter.molnar@utoronto.ca](mailto:peter.molnar@utoronto.ca)) (i) your CV, (ii) a copy of your transcripts, and (iii) a one-page cover letter that outlines your academic background, qualifications, and interest in the advertised positions. Applicants with backgrounds in ecology, parasitology, or related fields, and/or with backgrounds in mathematics, statistics, or related fields, will be considered. A previous MSc degree is an asset, but direct-entry admission from a BSc is also possible for excellent candidates with research experience. Both positions are fully funded through a Natural Sciences and Engineering Research Council of Canada (NSERC) grant, and are open to both domestic and international applicants, offering competitive stipends; please see <https://eeb.utoronto.ca/education/graduate/> for details on admission, stipends, and the PhD program in general.

We value diversity and strongly encourage candidates from all backgrounds to apply.