

Graduate student opportunity in Aquatic Vertebrate Environmental Biomonitoring

The Katzenback Lab (<https://uwaterloo.ca/katzenback-lab/>) is recruiting a MSc student to study the use of environmental DNA detection methods for the non-invasive monitoring of aquatic vertebrates.

PROJECT SCOPE: An emerging method of detecting aquatic vertebrates and their pathogens is the analysis of environmental DNA (eDNA) from water samples. The MSc student will work with a collaborative group of researchers to conduct field and laboratory-based experiments to validate the utility of using eDNA for detecting target aquatic species and their pathogens. They will then apply these methodologies to local waterways for the development of eDNA assays that could be implemented by end-users for monitoring aquatic ecosystem health and prediction of changes to aquatic populations.

ACADEMIC ENVIRONMENT: The student will join Dr. Katzenback's research group in the Department of Biology (<https://uwaterloo.ca/biology/graduate-studies>) at the University of Waterloo. The student would also collaborate with other researchers at the University of Waterloo and the University of Saskatchewan.

FUNDING: This research project is funded through a Global Water Futures grant. The current guaranteed stipend for domestic MSc students is \$24,606/y. Eligible students are encouraged to apply for external funding.

ESSENTIAL QUALIFICATIONS:

1. Successfully complete a BSc in Biology or a related program prior to the proposed start date, with a minimum cumulative GPA of 75% or greater.
2. Have meaningful experience in molecular biology (e.g. taken upper year genetics/molecular biology classes and/or labs, or completed a relevant undergraduate thesis, or work experience in this area)
3. Be able to work independently and collaboratively.
4. Possess strong verbal and written communication skills.
5. Be interested in learning field work protocols and bioinformatics.

STARTING DATE: Sept 1, 2021 (flexible, but ideally a 2021 start date)

APPLICATION PROCESS: To apply, e-mail Dr. Katzenback (barb.katzenback@uwaterloo.ca) by **April 16, 2021** using the subject line "eDNA 2021" and include: **1)** Cover letter that outlines your research interests and how they align with the project, and how your experiences meet the stated essential qualifications; **2)** Curriculum vitae; **3)** Contact information of three references (must include name, affiliation and email address); and **4)** Unofficial transcripts. Only short-listed applicants will be contacted.

Our group strives to be a diverse, equitable, inclusive and collaborative community that supports and empowers each individual to cultivate their potential and achieve their professional goals. We welcome applications from women, Indigenous, Black and other under-represented persons. If you need additional time to put together your application, please email Dr. Katzenback prior to the April 16 deadline.

At this time, due to COVID-19 restrictions, we are only considering applications from Canadians and/or individuals who currently reside in Canada.