

# Mariam Elmarsafy

## **Personal summary:**

I am passionate about science, conservation, and science communication. I have conducted research and fieldwork to record and identify species and their habitats, I have proven experience in data collection and management of biological information, and I have been consistently involved with community outreach. I have experience educating and working with people of all ages. I have strong leadership skills, proven oral and written communication skills, and experience in event planning and program coordination.

## **Education:**

Bachelor of Arts: Honours Biology with Minor in Political Science from Wilfrid Laurier University 06/2017

Master of Science: Integrative Biology with Specialization in Aquatic Ecology from Wilfrid Laurier University expected 04/2020

## **Professional experience:**

Field Science Technician

*Wilfrid Laurier University with fieldwork in the Northwest Territories - Inuvialuit Settlement and Gwich'in Region / June 2018 and July 2019*

- Conducted field water quality analysis for 40 remote Arctic lakes
- Collected bathymetric data for 40 remote Arctic lakes
- Utilized zooplankton nets to collect specimens and identify species
- Cast and reeled gill nets for fish collection and identified species
- Built strong relationships with members of local indigenous communities
- Supervised several volunteers on the research team

Teaching Assistant

*Wilfrid Laurier University / May 2018 – March 2020*

- Successfully taught labs for Life on earth: Plants BI226 (twice), Life on Earth: Animals (BI256) and Comparative Vertebrate Anatomy (BI359) (twice)
- Marked assignments weekly, tracked attendance and calculated grades
- Supervised students in laboratory to ensure a safe and a positive learning environment
- Helped struggling students with one-on-one sessions
- Gave constructive meaningful feedback on assignments
- Demonstrated laboratory procedures and gave introductory lectures
- Advised students on how to manage time and accomplish goals
- Proctored midterms and final exams

Guest Lecturer

*Wilfrid Laurier University / December 2019*

- Provided a lecture to 25 students in a fourth-year undergraduate course, Invertebrate Biodiversity and Conservation (BI488)
- Described the impact of climate change on lakes and the organisms living within them
- Ran an interactive game show activity (Kahoot) to test student's knowledge of a required reading
- Moderated a class debate on whether road salt use should be permitted near lakes and streams

Supervisor of undergraduate research assistant

*Wilfrid Laurier University / (May 2018 - present)*

- Ensured a safe and positive learning environment for the student as she learned laboratory techniques and gained knowledge and understanding of the project
- Trained student on how to run experiments, make chemical solutions and take care of highly sensitive freshwater animals
- Modeled the behaviours, such as attention to detail, necessary for successfully running scientific experiments
- Edited proposal documents and projects with meaningful constructive feedback
- Encouraged student to go to conferences and other science-based events

Direct Support Worker for children with special needs

*City of Brampton / Summer 2011 and 2012*

- Organized field trips for children with special needs
- Ensured safety and amusement of children
- Developed trust with parents or guardians of children as well as the children themselves
- Provided excellent customer service to children and parents

### **Publications and reports:**

**Elmarsafy M.**, Vucic M.J., Teillet M., Pretty T., Cohen R., Huynh M., Gray D.K. Which physicochemical variables should zooplankton ecologists measure when they conduct field studies? *Journal of Plankton Research. In review*

**Elmarsafy M.**, Tasky K.K., Gray D.K., Can zooplankton on the great plains 'keep up' with climate driven salinity change? *Journal of Limnology and Oceanography. In preparation*

### **Presentations:**

Mariam Elmarsafy and Derek K. Gray. Can zooplankton on the great plains 'keep up' with climate driven salinity change? Association for the Sciences of Limnology and Oceanography. San Juan Puerto Rico. February 2019.

Mariam Elmarsafy and Derek K. Gray. Can zooplankton on the great plains 'keep up' with climate driven salinity change? Canadian Conference for Fisheries Research and the Society of Canadian Limnologists. **Halifax, Nova Scotia, Canada. January 2020.**

Mariam Elmarsafy and Derek K. Gray. How will zooplankton respond to climate change in Great Plains' lakes? Extreme Climate Events Symposium. **York University, Toronto.**

**February 2020.**

**Awards and Recognitions:**

- Received First Place in Laurier's three-minute thesis competition and competed in the Ontario's provincial competition (present research in a creative way in three minutes)
- Finalist for Laurier Student Teaching Award of Excellence (winner will be announced in April 2020)
- Represented Laurier's in water protection initiative in Laurier's news article: "Student winners of Laurier 3MT competition shine spotlight on water protection"
- President and Treasurer of the Biology Graduate Students Association (wrote proposals for funding and acted as a liaison between all other GSA positions)

**Science outreach:**

Volunteer in running activities for the Aquatic Science Outreach Network (AquaSONG)

*Wilfrid Laurier University / September 2018 – August 2019*

- AquaSONG provides high school science students with an interactive full day field trip that connects them to the chemistry and biology of the Grand River
- Assisted in running activities for high school students weekly
- Assisted in field collection of invertebrates on the Grand River
- Assisted in bringing the invertebrates back the labs at Laurier and identifying them
- Assisted in choosing what variables should be measured while on the Grand River
- Encouraged students to pursue further education in biology
- Encouraged students to learn about the outdoors

Assistant in running activities for Science Odyssey

*Wilfrid Laurier University / May 2019*

- Science odyssey is a national campaign that delivers fun and inspiring activities to Canadians of all ages so that they might become interested in science
- Assistant in running activities such as allowing children to choose which filter they think will be the best for purifying water: rice, peat, charcoal or sand
- Walked them through a small filtration experiment and water quality test
- Gave short presentation to youth and adults on climate change

Other Volunteer and Community outreach experience

*Wilfrid Laurier University / September 2018 – April 2020*

- Volunteered as a STEM fair poster Judge at Mary Johnston Public School (engaged with young students about science)
- Invited as Panelist member at Laurier's open house (involved giving presentation to parents and future Laurier students about the biology program)
- Coordinator for 'Center for Cold Regions Open Doors Tour' for the general public
- Elevenses coordinator (organized social gathering for Biology Department biweekly for 8 months)
- Executive facilitator of the biology Writing Club