



Education

PhD, Biological Sciences

2026–Present

University of Waterloo, Ontario, CA

- Research Interests: Plant Ecophysiology, Climate Change, Evolution, Instrumentation
- Research Advisors: Dr. Julie Messier, Dr. Audrey Maheu

BSc, Biology; BSc, Environmental Science

2022–2026

Wilkes University, Wilkes-Barre, PA, USA

- B.S. Thesis: Stable or Slipping? A Landslide Risk Assessment of Shickshinny Mountain, PA
- Research Advisor: Dr. Bobak Karimi

Relevant Research & Work Experience

Laboratory Tech Assistant

2022-2026

Biology and Earth Systems Science Department, Wilkes Uni.

- Responsibilities: Laboratory equipment maintenance, manage chemical inventory, contribute in science-focused community outreach initiatives
- Advisor: Julie McMonagle

Student Researcher

2025-2026

Instrument Development and Invasive Grass Study - Wilkes Uni.

- Built and tested a system to passively measure water loss in plants.
- Led an experiment investigating shade tolerance in an invasive C4 grass species against native C3 species.
- Advisor: Dr. Ned Fetcher

Research Assistant

2024-2025

Arctic Tundra Plant Phenology - Wilkes Uni.

- Collected phenology and photosynthesis data for an NSF funded project on local adaptation of arctic sedge *Eriophorum vaginatum*
- Advisor: Dr. Ned Fetcher

Awards

- Dean's List *Wilkes Uni.* 2023-2026
- George H. Fenner Student Research Scholarship *Wilkes Uni.* 2024, 2025
- Chi Alpha Sigma Athletics Honor Society *Wilkes Uni.* 2025
- Academic Honor Roll *Landmark Conference* 2023-2025
- Resident's Award for Educational Achievement *Wilkes Uni.* 2022

Publications

Journal Articles

Water Use Efficiency and Biomass Allocation Underlie the Success of *Microstegium vimineum* in the Shade Relative to Native C3 Grasses

Edwards, C., Fetcher, N.

(In Prep)

Eccentricity-Based Dendrochronology Provides Evidence of Spatial-Temporal Reactivation of Landslides at Shickshinny Mountain, Luzerne County PA.

Edwards, C., Papke, S., Helstowski, A., Karimi, B.
(In Prep)

Ecotypes Matter: Changes in Daylength and Site of Origin Underlie the Onset of Leaf Senescence along a Latitudinal Gradient in Eriophorum vaginatum, a Foundation Species of the Alaskan Arctic Tundra

Vaz, M. C., Mahler, W., Larson, B., Pallares-Solan Po, L. A. Jolley, D. D., Edwards, C., Del Cid Ramirez, B., Orquiz, H., Tang, J., Moody, M., Shaver, G. & Fetcher, N.
Arctic Science (In review)

Presentations

Talks

Reading Between the Rings: A Dendrochronological Approach to Reconstructing Landslide Activity

Pennsylvania GIS Conference, 2026

Predict the Slip!: Slope Safety Analysis Using Factor of Safety

Pennsylvania GIS Conference, 2025

Eriophorum vaginatum Minimum Conductance Across Varying Ecotypes

Toolik Field Station, AK, 2024

Posters

Stable or Slipping? Landslide Risk Assessment of Shickshinny Mountain

Edwards, C., Papke, S., Helstowski, A., Karimi, B.
Pennsylvania GIS Conference, 2026

Safe in the City: Do Deer-Free Woodlots Benefit Native Plants?

DeCresenza, C., O'Boyle, J., Edwards, C., Fetcher, N., Stratford, J.
Ecological Society of America, Mid Atlantic Chapter, 2026

Nature vs Nurture in the Alaskan Arctic: Are Photosynthetic Traits Genetically or Environmentally Determined in Tussock Sedges?

Edwards, C., Larson, B., Carita Vaz, M., Fetcher, N.
Ecological Society of America, Annual Meeting, 2025

Teaching

Teaching Assistant: Biodiversity, Biomes & Evolution

2026

Outreach and Engagement

Leadership

Wilkes Ecology Club *Executive Board*

2023-2026

Tri-Beta Biological Honor Society *Vice President*

2023, 2024

Volunteering

PA GIS Conference

2024-2026

STEM Discovery Day

2023-2026

Earth & Environmental Science Day

2023-2026

We're Empowered by Science (WEBS)

2023, 2025

Luzerne County Envirothon

2025

RiverFest Event Education

2023

Mentorship

Harsiman Kaur

2026-Present

Undergraduate, UWaterloo

- Project: Quantified onset of leaf senescence in *Medicago lupulina* to access drought-induced differences in leaf longevity