

TIM ALAMENCIAK

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Citizenship: Canadian

Languages: English, French (B2)

Research interests: Ecological restoration · Conservation policy and temporary conservation mechanisms · Knowledge graphs and ontologies for environmental evidence synthesis · Volunteer engagement and community-based conservation · Translational ecology · AI-assisted evidence synthesis

RESEARCH POSITIONS

Postdoctoral Fellow - Carleton University (2024 - Current) Bennett Lab - Dr. Joseph Bennett

- Collaborate with Ducks Unlimited to research the effectiveness of temporary conservation agreements over time using ArcGIS and R with annual crop inventory (ACI) data.
- Plan quantitative and qualitative research approaches to measuring ecological and social outcomes of conservation agreements using surveys of landowners.
- Provide mentorship and guidance to students at the PhD, Masters, and Honours undergraduate levels in the Bennett Lab.

Adjunct Assistant Professor - University of Waterloo (2024 - Current) School of Environment, Resources and Sustainability

- Faculty liaison for the Society for Ecological Restoration student group.
- Provide mentorship and guidance to students at the PhD, Masters, and Honours undergraduate levels, including sitting on thesis committees.
- Researcher with the Waterloo Data & Artificial Intelligence Institute.

Research Fellow - St. Jerome's University (2024 - Current) Digital Research Arts for Graphical and Environmental Networks (DRAGEN) Lab - Dr. Steven Bednarski

- Collaboratively design interdisciplinary research projects with Medieval environmental history scholars.
- Provide mentorship and instruction to graduate student historians from the perspective of ecology.
- Assist with research development, including interpreting stratigraphy and remote sensing data for restoration ecology.

Senior Research Scientist - University of Victoria (2024 - Current) Restoration Futures Lab - Dr. Nancy Shackelford

- Lead the development of the Ecolink Model Ontology (ELMO).
- Oversee and plan the development of the Toolkit for Restoration Ecology Knowledge (TReK), in connection with EcoWeaver.

- Supervise a PhD student in the creation and maintenance of a community of practice.

Research Associate - Ecological Restoration Knowledge Synthesis Project (2020 - 2023) University of Victoria (in collaboration with University of Waterloo, Carleton University, and L'Universite Laval). PI: Dr. Eric Higgs

- Conducted the first-ever systematic map of ecological restoration literature in Canada using R, Bibliometrix, and Cadima.
- Research outputs include 1 published peer-reviewed paper, 3 conference presentations, and 1 national workshop.

Project Manager - Campus EcoMap, University of Waterloo (2021 - 2022)

- Secured \$20,000 in funding over two years from the Sustainability Action Fund to map ecological data.
- Supervised five undergraduate research associates in the creation of the map and accompanying report.
- Used ArcGIS and QGIS to create an index and map of available ecological research in the Borealis repository.

VISITING POSITIONS & RESIDENCIES

Visiting Researcher - Centre for Interdisciplinary Research (ZiF), Bielefeld University (Sept 2024 - Feb 2025) Research group: "Mapping Evidence to Theory in Ecology" (invited by Dr. Tina Heger)

- Contributed to interdisciplinary working group on evidence synthesis and theory formation in ecology.
- Built prototype semantic AI tools for evidence synthesis.
- Developed further international collaborations with the Lamarr Institute for Machine Learning and AI.

EDUCATION

PhD, Social and Ecological Sustainability, University of Waterloo (2019 - 2024) Supervisor: Dr. Stephen D. Murphy

Dissertation: Volunteer Participation in Ecological Restoration - Conducted a systematic map of literature analyzing the motivations of volunteers to participate in restoration and conservation using R. - Executed and analyzed a survey of volunteers to assess the relationship between organizational factors and volunteer engagement using structural equation modeling. - Interviewed volunteers for a community-based project and analyzed interview data using Atlas.Ti 9.

MA, Journalism, Toronto Metropolitan University (2010 - 2012) Supervisor: Dr. Gene Allen

BA (Hons.), Peace and Conflict Studies, University of Waterloo (2004 - 2010)

FUNDING AND AWARDS

Research Grants (Total: \$607,000)

- **2026** DFG Workshop Fund for September EcoWeaver workshop - €22,000

- **2026** Environmental Data Science Innovation & Impact Lab (ESIL) 2026 working group - CMSMapper: Optimal climate mitigation planning for nature and people - \$65,000 USD (co-PI)
- **2026** NVIDIA Academic Grant Program Award, NVIDIA DGX Spark - \$5,000 (PI)
- **2025** St. Jerome's University Faculty Research Grant (EcoTransform Hackathon) - \$10,000 (co-PI with Kian Drew)
- **2025** PSAC 77000 Professional Development Fund - \$2,000 (PI)
- **2024** NSERC Alliance fund, "Evaluating the potential of temporary conserved areas for biodiversity conservation" with Ducks Unlimited Canada - \$355,000 (co-PI with Dr. Joseph Bennett)
- **2022** University of Waterloo Sustainability Action Fund - \$20,000 (co-PI with Dr. Shefaza Esmail)
- **2021** University of Waterloo Sustainability Action Fund - \$20,000 (co-PI with Dr. Shefaza Esmail)
- **2020** Ontario Trillium Fund, ecological restoration education with Ignatius Jesuit Centre - \$70,000 (co-applicant)
- **2020** Waterloo Environment Students Endowment Fund - \$1,000 (PI)
- **2019** Waterloo Environment Students Endowment Fund - \$300 (PI)

Grants in review

- **2026** "Modelling and understanding the causal mosaic of social-ecological systems: Theoretical and methodological contributions in the context of the EcoWeaver initiative" - Center for Interdisciplinary Research (ZiF: Zentrum für interdisziplinäre Forschung), Bielefeld University - EUR 200,000 (Co-PI)

Awards

- **2025** PSAC 77000 Postdoctoral Fellow Award - Finalist
- **2022** Certificate in University Teaching Award - \$1,000

TEACHING EXPERIENCE

Sessional Lecturer, ENVS 205 - Sustainability: The Future We Want *(Spring 2026)*

University of Waterloo

Supervisor, Honours thesis (Kacey Hammond), Bachelor of Science *(Fall 2025 & Winter 2026)*

Carleton University, Ottawa, Ontario

Course Mentor, BIOL 5512 - Advances in Applied Ecology *(Fall 2024)* Led a group's intensive research project. See resulting publication Hodgson et al. 2026 Carleton University, Ottawa, Ontario

Supervisor, Honours thesis (Logan Rehberg), Bachelor of Science *(Spring 2024)*

Carleton University, Ottawa, Ontario (See resulting publication Alamenciak et al. 2026.)

Sessional Lecturer, ERS 253 - Communities and Sustainability *(Winter 2024)*

University of Waterloo, School of Environment, Resources and Sustainability (38 students; in-person)

- Re-designed course including entirely new readings, structure, assignments, lectures, and online space through LEARN.
- Incorporated inquiry-based learning and professional guest lectures into course materials.

Teaching Assistant, ERS 340 - Ecosystem Assessment *(Spring 2021)*

University of Waterloo (31 students; online)

Teaching Assistant, ERS 401 - Translational Ecology (*Winter 2021*)

University of Waterloo (40 students; online)

Teaching Assistant, ERS 335 - Ecological Restoration (*Fall 2020*)

University of Waterloo (40 students; online)

Teaching Assistant, multiple courses (*Sept 2019 - Aug 2020*)

University of Waterloo (ENVS 200, ERS 402, ERS 300)

WORK EXPERIENCE

Communications Manager - Reep Green Solutions (*2021 - 2023*)

- Developed and executed engaging, accessible, and effective communications strategies to increase knowledge of sustainability in community members.
- Mobilized knowledge through partnerships with university researchers around climate mapping and flood risk.

Digital Media Producer - TVO (*2015 - 2018*)

- Produced and directed Climate Watch Shorts, a series of short documentaries on the impacts of climate change in Ontario.
- Led the creation of TVO's first podcast (The #onpoli podcast).

Staff Reporter - Toronto Star (*2012 - 2015*)

- Covered major news stories including the Rob Ford scandal, Jian Ghomeshi's trial, and the impact of residential schools.
- Managed large-scale, multi-part feature reporting projects.

PUBLICATIONS

Peer-reviewed publications

2026 Courtney D. Robichaud, Christine Beaudoin, Tim Alamenciak, Jaimie Vincent, Steven J. Cooke, Vivian M. Nguyen, Richard Schuster, Nathan Young, Joseph R. Bennett. "Data, politics, and funding cause uncertainty for conservation practitioners." *Conservation Science and Practice*. <https://doi.org/10.1111/csp2.70372>

2026 Ryan Y. Hodgson, Steven A. Robinson, Amelie C. Boutin, Felix K. Chan, Joseph R. Bennett, Rachel T. Buxton, J. Harry Caufield, Dalal E.L. Hanna, Tim Alamenciak. "Assessing the Effectiveness of Ontology-Grounded AI Term Extraction Using OntoGPT for Environmental Evidence Synthesis." *Environmental Evidence*. <https://link.springer.com/article/10.1186/s13750-026-00381-0>

2026 Tim Alamenciak, Nancy Shackelford, Logan Rehberg, Ash Baron, Steven D. Murphy, Eric Higgs, Tina Heger, Alina Fisher, Bruno Travassos-Britto, Ryan Stephenson. "Identifying practitioner and researcher collaboration needs to improve ecosystem restoration in Canada." *Socio-Ecological Practice Research*. <https://link.springer.com/article/10.1007/s42532-025-00243-y>

- 2026** Steven J. Cooke, Kevin A. Adeli, Trina Rytwinski, Andrew N. Kadykalo, Jennifer Provencher, Vivian Nguyen, Joseph Bennett, Christina Davy, Rachel Buxton, Dalal Hanna, Jesse C. Vermaire, Sean Landsman, Nathan Young, Graeme Auld, Danika Littlechild, Jennifer M. Holzer, Meagan Harper, Andrew Howarth, Tim Alamenciak, Lauren Lawson, Jayme Lewthwaite, Erin E. Stukenholtz, Paul A. Smith, Ilona Naujokaitis-Lewis, Josie Hughes, Barbara Frei, Amanda Martin, Amie Black, Richard Pither, Douglas MacNearney, Kristen Lalla, Carmen Galan-Acedo and Christopher Cvitanovic. "Supporting frontline workers in the biodiversity crisis by empowering and enabling practitioners to embrace conservation evidence." *Socio-Ecological Practice Research*. <https://doi.org/10.1007/s42532-026-00255-2>
- 2025** Jeffrey O. Hanson, Jenny L. McCune, Tim Alamenciak, Joseph R. Bennett. "Increasing the credibility of conservation plans through citizen science." *Biological Conservation*. <https://doi.org/10.1016/j.biocon.2025.111552>
- 2025** Josie South, Roxana Barbulescu, Rafael L. Macedo, Camille L. Musseau, Simone Guareschi, Tim Alamenciak, et al.. "Parallels between biological invasions and human migration are flawed and undermine both disciplines. Response to Ahmed et al." *BioScience*. <https://doi.org/10.1093/biosci/biaf073>
- 2025** Tim Alamenciak, Elise Gornish, Stephen D. Murphy. "Dimensions of Effective Volunteer Restoration Techniques in North America." *Restoration Ecology*. <https://onlinelibrary.wiley.com/doi/full/10.1111/rec.70028> Audio
- 2024** Tim Alamenciak, Stephen D. Murphy. "What makes a convivial community tool? Investigating grassroots ecological restoration." *Ecology & Society*. <https://doi.org/10.5751/ES-15258-290303> Audio
- 2024** Tim Alamenciak, Stephen D. Murphy. "Motivations for Volunteers to Participate in Ecological Restoration: A Systematic Map." *Restoration Ecology*. <https://doi.org/10.1111/rec.14155> Audio
- 2023** Tim Alamenciak, Dorian Pomezanski, Nancy Shackelford, Stephen D. Murphy, Steven J. Cooke, Line Rochefort, Sonia Voicescu, Eric Higgs. "Ecological Restoration Research in Canada: Who, What, Where, When, Why, and How?." *FACETS*. <https://doi.org/10.1139/facets-2022-0157> Audio
- 2022** William J. Sutherland, Jake M. Robinson, David C. Aldridge, Tim Alamenciak, Matthew Armes, Nina Baranduin, Andrew J. Bladon, et al.. "Creating Testable Questions in Practical Conservation." *Conservation Evidence Journal*. <https://doi.org/10.52201/CEJ19XIFF2753>
- 2020** Anita Lazurko, Tim Alamenciak, Lowine Stella Hill, Ella-Kari Muhl, Augustine Kwame Osei, Dorian Pomezanski, Kyle Schang, Dilruba Fatima Sharmin. "What Will a PhD Look Like in the Future?." *World Futures Review*. <https://doi.org/10.1177/1946756720976710>

Peer-reviewed publications in progress

- 2026** Tim Alamenciak, Amy Bachhuber, Joseph R. Bennett, Steven J. Cooke, Kian L. Drew, Daniel Dylewsky, Emily McKnight, Pat Moore, Ana Hernandez Martinez De La Riva, Bronwyn Rayfield. "Machines in the loop: Challenges and opportunities for environmental evidence synthesis research in the artificial intelligence era." *FACETS* (Under review).

2026 Federica Bocchi, Aline Potiron, Eleonore Slabbert, Tim Alamenciak, Anika Grose, Birgitta König-Ries, Lotte Korell, Carlos Santana, Tina Heger. "Operationalizing the CARE principles in evidence synthesis for ecology and conservation." *Nature Communications* (Under review).

2026 Tim Alamenciak, Stephen D. Murphy. "Which Aspects of Restoration Project Organization Affect Volunteer Engagement in Community-Based Initiatives?." *Restoration Ecology* (Under review).

Conference papers

2025 Tim Alamenciak, Carlos Alberto Arnillas, J. Harry Caufield, Katherine Compton, Kian Drew, Robert Fruehstueckl, Tina Heger, Birgitta König-Ries, Chris Mungall, Sierra Moxon, Justin Reese, Jordan Tardif, Lars Vogt. "Ecolink: Towards a Knowledge Graph Schema for Complex Environmental Systems." *New Trends in Theory and Practice of Digital Libraries*.
https://link.springer.com/chapter/10.1007/978-3-032-06136-2_33

Preprints

2025 Lars Vogt, Birgitta König-Ries, Tim Alamenciak, Joshua I. Brian, Carlos Alberto Arnillas, Lotte Korell, Robert Fruehstueckl, Tina Heger. "A Framework for FAIR and CLEAR Ecological Data and Knowledge." *arXiv*. <https://doi.org/10.48550/arXiv.2508.08959>

SOFTWARE & RESEARCH TOOLS

- **Ducks Unlimited Reversion Detector** - An RShiny geospatial interface for 20 years of Ducks Unlimited Canada temporary conservation agreements that allows staff to inspect which agreements reverted back to cropland during or after the agreement period. *Internal tooling for DUC*
- **EcoWeaver** - Semantic framework for synthesizing ecological data streams into accessible, practitioner-ready formats. <https://ecoweaver.hi-knowledge.org>
- **ELMO** - Ecolink Model Ontology (lead developer). An OWL ontology for standardizing terminology in biodiversity restoration and conservation across research and practice. [Github repository](#)
- **Ecolink** - Knowledge graph schema for representing complex environmental relationships (see Alamenciak et al. 2025, TPD).
- **rosettaR** - R package for bidirectional translation between structured KGX data and natural language using template-based rendering. [Github repository](#)

PRESENTATIONS AND INVITED LECTURES

- **2026** Tim Alamenciak, Lauren Bortolotti and Joseph R. Bennett. "The enduring benefits of short-term conservation agreements" Canadian Society for Ecology and Evolution Annual Conference.
- **2026** Tim Alamenciak, Robert Fruehstueckl, Phyllis Illari, Lars Vogt. "Causal Mosaic Schema: Encoding Causal Claims in Ecological Literature as Machine-Actionable Knowledge Graphs" TDWG 2026 Conference.
- **2026** Tim Alamenciak. "The John Connor Guide to Life with LLMs" Brains on Tap.
- **2026** Tim Alamenciak. "EcoWeaver Workbench — hands-on schema prototyping" Integrative Social-Ecological Knowledge Systems: Conceptual and Computational Foundations for Ecological Synthesis.

- **2026** Federica Bocchi, Kian Drew, Tim Alamenciak. "Indigenous data sovereignty in computational ecological knowledge integration" Integrative Social-Ecological Knowledge Systems: Conceptual and Computational Foundations for Ecological Synthesis.
- **2026** Tarek al Mustafa, Tim Alamenciak, Robert Fröhstüchl. "Bridging the evidence gap: a collaborative question-ranking workshop for EcoWeaver" Integrative Social-Ecological Knowledge Systems: Conceptual and Computational Foundations for Ecological Synthesis.
- **2026** Tim Alamenciak. "AI and decision support tools for land trusts" Ontario Land Trust Alliance Conference.
- **2025** Tim Alamenciak. "Mapping Evidence to Theory in Ecology." Workshop, University of Bielefeld.
- **2025** Tim Alamenciak, Carlos Alberto Arnillas, J. Harry Caufield, Katherine Compton, Kian Drew, Robert Fröhstüchl, Tina Heger, Birgitta König-Ries, Chris Mungall, Sierra Moxon, Justin Reese, Jordan Tardif, Lars Vogt. "Ecolink: Towards a Knowledge Graph Schema for Complex Environmental Systems." EcoDL Workshop at the Theory and Practice of Digital Libraries conference, Tampere, Finland.
- **2025** Tim Alamenciak. "Toolkit for Restoration Ecology Knowledge (TReK)." AI Colloquium, Lamarr Institute, Dortmund, Germany. *(Invited)*
- **2025** Tim Alamenciak. "Three stories of restoration and conservation engagement." School of Environment, Resources and Sustainability Salon; Carleton BIOL 5534; Knowledge Mobilization Community of Practice; University of Waterloo PSCI 303. *(Invited)*
- **2024** Tim Alamenciak, Ash Baron, Catherine Febria, Eric Higgs, Ryan Stephenson, Stephen Murphy, Nancy Shackelford. "Boots & Suits: Mobilizing knowledge in ecosystem restoration." Society for Ecological Restoration North American Conference, Vancouver.
- **2024** Tim Alamenciak. "Lowering barriers, changing behaviours." Guest lecture (Invited by Dr. Christina Davy). *(Invited)*
- **2024** Tim Alamenciak. "Knowledge Graphs for Land-Based Knowledges: Encoding Restoration Ecology and Environmental History." Summer Research Institute, Quaker Institute for the Future.
- **2024** Tim Alamenciak. "Fuzzy cognitive mapping using knowledge graphs for restoration ecology." Interdisciplinary Perspectives on Knowledge Synthesis in Ecology workshop, University of Bielefeld. *(Invited)*
- **2024** Tim Alamenciak. "Volunteer engagement in ecological restoration." Guest lecture: ENVS 195 — Introduction to Environmental Studies. *(Invited)*
- **2024** Tim Alamenciak. "Taming Complexity in Ecology." Workshop, Germany. *(Invited)*
- **2024** Tim Alamenciak. "Taming Complexity: AI Approaches to Knowledge Synthesis." University of Waterloo, SERS Salon.
- **2024** Tim Alamenciak. "People-powered ecosystem restoration." University of Arizona, Gornish Lab. *(Invited)*
- **2024** Tim Alamenciak & Steffanie Scott. "Engaging instructors and students in transformative learning amid polycrisis." University of Waterloo Teaching and Learning Conference.
- **2024** Tim Alamenciak. "Mapping evidence to theory in ecology: Addressing the challenges of generalization and causality." Residency at Centre for Interdisciplinary Research (ZiF), Bielefeld University. *(Invited)*

- **2024** Tim Alamenciak. "Mapping and assessing evidence in ecological restoration." Geomatics and Landscape Ecology Lab (GLEL), Carleton University.
- **2024** Tim Alamenciak. "How to recruit and retain more volunteers." Webinar for Carolinian Canada. *(Invited)*
- **2023** Tim Alamenciak. "Volunteer engagement in ecological restoration." Environment Graduate Students Association conference, Waterloo, Ontario.
- **2023** Tim Alamenciak. "Ecological Restoration Research in Canada: Who, What, Where, When, Why and How?" RE3 Conference: Reclaim, Restore, Rewild, Quebec City, Quebec.
- **2022** Tim Alamenciak. "Comparing community-led tree planting programs." University of Waterloo, ERS 253. *(Invited)*
- **2022** Tim Alamenciak. "Championing Change in the Field and Office." Designing Change for a Living Planet — World Wildlife Fund. *(Invited)*
- **2022** Tim Alamenciak. "Guest speaker." Landscapes of Holistic Sustainability and Wellbeing Retreat, Wilfrid Laurier University. *(Invited)*
- **2022** Tim Alamenciak. "Advocacy 101: How to talk about climate change with politicians." ClimateActionWR sector committee talk. *(Invited)*
- **2021** Higgs, Eric, Tim Alamenciak, & Sonia Voicescu. "Ecological Restoration: Nature-Based Solutions for Climate Mitigation and Engaging Canadians with Nature." Living Within the Earth's Carrying Capacity Forum, Ottawa, Ontario.
- **2021** Tim Alamenciak, & Dorian Pomezanski. "Analyzing Canadian ecological restoration literature with bibliometric analysis and a systematic map." Evidence Synthesis & Meta-Analysis in R Conference.
- **2021** Tim Alamenciak & Dorian Pomezanski. "Charting the evidence landscape: A systematic map and bibliometric analysis of ecological restoration in Canada." Society for Ecological Restoration Conference.
- **2021** Tim Alamenciak. "Facilitator." Food Systems Summit 2021: Green Growth Dialogue, Arrell Food Institute, University of Guelph.
- **2021** Tim Alamenciak, Elise Gornish, Stephen Murphy. "How to design techniques for volunteer ecological restoration." National Extension Conference on Volunteerism-Lite.
- **2021** Tim Alamenciak. "Decolonizing Worldviews: Unpacking nature and wilderness." Wholistic Restoration — Ignatius Jesuit Centre. *(Invited)*
- **2021** Tim Alamenciak. "Working Together and Giving Back: Building and sustaining volunteer motivation." Wholistic Restoration — Ignatius Jesuit Centre. *(Invited)*
- **2020** Tim Alamenciak. "Who gets to care for nature? Participation in ecological restoration." Guest Lecture — University of Waterloo PACS 310. *(Invited)*
- **2020** Tim Alamenciak. "Assessment in restoration ecology." University of Waterloo, ERS 342. *(Invited)*

WORKSHOPS AND CONFERENCES HOSTED

Ontario Ecological Restoration Conference *(Forthcoming October 2026)* Conference co-organizer.
Hosted at the University of Waterloo.

Integrative Social-Ecological Knowledge Systems: Conceptual and Computational Foundations for Ecological Synthesis (*Forthcoming 28 September - 1 October 2026*) Workshop co-organizer. Friedrich Schiller University Jena, Germany. Funded by the DFG Workshop Fund.

Evidence Jam (*Forthcoming November 2026*) Organizer. This hackathon will challenge students to use generative AI tools for environmental evidence synthesis in rigorous, repeatable ways.

GLELxSciComm: A Day of Science Communication Learning (*2025*) Organizer. Full day workshop providing science communication training for 40 students and staff at Carleton.

From Abstract to Action (*2024*) Organizer. Series of three talks organized for members of the Geomatics and Landscape Ecology Lab (GLEL). Approximately 40 faculty and students attended each talk.

PROFESSIONAL SERVICE

Peer Reviews

Restoration Ecology; Sustainability Science; Society & Natural Resources; Ecology & Society; People & Nature

Grant Reviews

Digital Research Alliance - EDIA Champions Program; Earth Science Information Partners (ESIP) - Community Resilience RFP

Service Roles

- **2025 - Current** Member, Knowledge Mobilization Community of Practice (UW)
- **2025 - Current** Member, Natural Spaces Working Group (UW)
- **2024 - Current** Board Member at-large, Environmental Studies Association of Canada (ESAC)
- **2023 - Current** Faculty liaison, Society for Ecological Restoration UW Student Chapter (SER-UW)
- **2024 - 2025** Land Stewardship Committee Member, Ignatius Jesuit Centre
- **2024 - 2025** Board Member, Emerging Leaders for Biodiversity (ELB)
- **2021 - 2022** Writing Cafe Organizer, Weekend Warriors Writing Cafe, University of Waterloo
- **2020 - 2021** Board Member, Society for Ecological Restoration (Ontario)
- **2019 - 2021** Member, Ecological and Environmental Advisory Committee, Region of Waterloo

PROFESSIONAL TRAINING

- **2025** MobilizeU Knowledge Mobilization Certificate, Simon Fraser University
- **2024** Knowledge Graphs - Foundations and Applications, Hasso Plattner Institute, Potsdam, Germany
- **2024** Mental Health Literacy Certificate Program, University of Waterloo
- **2021 - 2022** Certificate in University Teaching, University of Waterloo
- **2021** Fundamentals of University Teaching, University of Waterloo
- **2020** Ontario Master Naturalist Certificate, Lakehead University
- **2020** Data-Driven Ecological Synthesis Summer School
- **2019** Ontario Benthic Biomonitoring Network (OBBN) Certificate

- **2019** Common Cause for Conservation Values-Based Communications Training