

# Vicki Mengyuan Zhang

FIELD ECOLOGIST AND RESEARCHER

DV2020 (office), DV2012 (lab), University of Toronto Mississauga

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## Expertise

- ecology, northern terrestrial ecosystems, conservation
- natural history and identification of flora and wildlife
- statistics, data visualization, modelling, version control

## Education

### Doctor of Philosophy in Science Candidate (Biology)

UNIVERSITY OF TORONTO MISSISSAUGA

Ontario, Canada

Jan 2020-Dec 2025

- Thesis: Limits to Non-Native Plant Invasions in the Canadian Subarctic. Scheduled defence date: 3 Dec 2025
- Supervised by Dr. Peter Kotanen.
- NSERC Postgraduate Scholar (Doctoral), Ontario Graduate Scholarship recipient.

### Honours Bachelor of Science (with high distinction)

UNIVERSITY OF TORONTO

Ontario, Canada

Sep 2015-Jun 2019

- Double major in Ecology and Evolutionary Biology (EEB), and Environmental Biology, minor in Linguistics.
- Honour's Thesis: "Distribution and range shifts of *P. americana* and *P. pennsylvanica*". Co-supervised by Locke Rowe and David Punzalan

## Research Experience

### Researcher

KOTANEN LAB

University of Toronto Mississauga

Jan 2020-Dec 2025

- Identify, experimentally test, and solve complex questions in ecology and evolutionary biology
- Lead multiple research projects and manage all aspects of the project, including: experimental design; data collection and management; data analyses, statistics, visualization, and interpretation; report writing, manuscript publication, and data archiving; and presenting talks and seminars
- Prepare research proposals and funding applications
- Supervise and collaborate with junior researchers, undergraduate students, and hired field technicians

### Laboratory and Field Assistant

KOTANEN LAB

University of Toronto Mississauga

Sep-Dec 2019

- Gathered field materials for future experiments.
- Trained, mentored and collaborated with an undergraduate work study student.

### Researcher

ROWE AND McCAULEY LAB

Koffler Scientific Reserve, U of T

May-Aug 2019

- Conducted field and lab research investigating the effect of de-icing road salt on aquatic ecosystems.
- Collected live organisms (dragonfly nymphs and adults of multiple species), monitored organisms daily, recorded and analyzed data.

### EEB Work Study Student

FREDERICKSON LAB

University of Toronto

Sep 2018-Feb 2019

- Managed, maintained and provided care to over 120 isogenic and mixed duckweed cultures.
- Assisted in data collection for lab projects.
- Completed other lab tasks as required

### EEB Work Study Student

ROLLINSON LAB

University of Toronto

May-Aug 2018

- Digitized field observations of reptiles into a reptile database.
- Interpreted and simplified complex observations, recognized anomalies in data records.
- Completed other lab tasks as required.

## Publications

## IN REVISION

Zhang, V.M., Kotanen, P.M.. Human-mediated soil movement risks increasing the spread of non-native species in a subarctic environment. *Neobiota*.

In revision as of: Oct 2025

## PEER-REVIEWED PUBLICATIONS

1. Zhang, V. M., & Kotanen, P. M. (2025). Low temperatures reduce establishment of new populations of invasive plants in a subarctic treeline environment. *Oecologia*, 207(10), 167. <https://doi.org/10.1007/s00442-025-05808-y>
2. Syed, O. A., Zhang, V. M., & Kotanen, P. M. (2023). Potential role of the seed bank in spreading invasive plants in a tundra-edge environment. *Botany*, 101(6), 193–199. <https://doi.org/10.1139/cjb-2023-0019>
3. Zhang, V. M., & Kotanen, P. M. (2023). Development of negative soil feedback by an invasive plant near the northern limit of its invaded range. *Plant Ecology*. <https://doi.org/10.1007/s11258-023-01330-4>
4. Zhang, V. M., Martin, R. L., & Murray, R. L. (2022). Chronic road salt exposure across life stages and the interactive effects of warming and salinity in a semiaquatic insect. *Environmental Entomology*, 51(2), 313–321. <https://doi.org/10.1093/ee/nvac014>
5. Zhang, V. M., Punzalan, D., & Rowe, L. (2020). Climate change has different predicted effects on the range shifts of two hybridizing ambush bug (Phymata, Family Reduviidae, Order Hemiptera) species. *Ecology and Evolution*, 10(21), 12036–12048. <https://doi.org/10.1002/ece3.6820>

## NON-REFEREED CONTRIBUTIONS

### Features:

- 2021 **V.M. Zhang.** Interview with an Atwood Lecturer. *The EEB Quarterly (Volume 3, Issue 2)*, page 22-25. <https://drive.google.com/file/d/1kIz41PtM1H2XL0fsccliKB7aLT26IpXqh/view>
- 2021 **V.M. Zhang.** In Review. Superior: The Return of Race Science by Angela Saini. *The EEB Quarterly (Volume 3, Issue 1)*, page 53-54. <https://drive.google.com/file/d/1G0akPI-b4pVYxTYNB9pbIVnMJVXY1x92/view>

### Editorials:

- 2024 Volume 5-Spring/Summer Issue. *The EEB Quarterly*. <https://theebquarterly.github.io/>
- 2024 Volume 5-Fall/Winter Issue. *The EEB Quarterly*. <https://theebquarterly.github.io/>
- 2023 Volume 4-Spring/Summer Issue. *The EEB Quarterly*. <https://theebquarterly.github.io/>
- 2022 Volume 4-Fall/Winter Issue. *The EEB Quarterly*. <https://theebquarterly.github.io/>

## Presentations

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### INVITED SEMINARS

- 2025 **Limits to plant invasions at the edge of the Canadian Arctic invasions.** Zhang, V.M., Kotanen, P.M. University of Toronto Mississauga Biology Seminar Series.
- 2022 **Northern invasions.** Zhang, V.M., Kotanen, P.M. National Invasive Species Awareness Week, Northwest Territories Council on Invasive Species, Pests, and Pathogens. Virtual.

## CONFERENCE TALKS

- 2025 **Human-mediated soil disturbance removes limits to plant invasions at the edge of the Canadian Arctic.** Zhang, V.M., Kotanen, P.M. Annual Meeting of the Canadian Society for Ecology and Evolution (CSEE). Sherbrooke, Quebec, Canada
- 2024 **Limits to plant invasions at the edge of the Canadian Arctic.** Zhang, V.M., Kotanen, P.M. Annual Meeting of the Canadian Society for Ecology and Evolution (CSEE). Vancouver, BC, Canada
- 2024 **Limits to plant invasions at the edge of the Canadian Arctic.** Zhang, V.M., Kotanen, P.M. Invasive Species Centre (ISC) Annual Forum. Virtual.
- 2023 **\*Limits to plant invasions at the edge of the Arctic.** Zhang, V.M., Kotanen, P.M. International Conference on Ecology and Management of Alien Plant Invasions. Pucón, Chile.
- 2023 **Limits to plant invasions at the edge of the Arctic.** Zhang, V.M., Da Silva, F., Kotanen, P.M. Invasive Species Centre (ISC) Annual Forum. Virtual.
- 2022 **Invasive Species at the Edge of the Canadian Arctic.** Zhang, V.M., Da Silva, F., Kotanen, P.M. ArcticNet Annual Scientific Meeting. Toronto, Ontario, Canada
- 2021 **Soil feedbacks in northern ecosystems invaded by non-native plants.** Zhang, V.M., Kotanen, P.M. Canadian Society for Ecology and Evolution (CSEE-SCEE) Annual Meeting. Virtual.
- 2019 **Hot Models: Projecting future climate-driven distributions of two ambush bug species, *Phymata americana* and *Phymata pennsylvanica*.** Zhang, V.M., Punzalan, D., Rowe, L. Toronto Entomologist Association (TEA) Student Symposium. Abstract: <https://vickimzhang.rbind.io/talk/tea-ugphymata/>

\* Awarded for best talk.

## CONFERENCE POSTERS

- 2020 **Climate change has different predicted effects on the range shifts of two hybridising ambush bug (*Phymata*) species.** Zhang, V.M., Punzalan, D., Rowe, L. International Association for Landscape Ecology (IALE): North America Region Virtual Meeting. iPoster: <https://2020toronto-ialena.iposteressions.com/default.aspx?s=62-71-43-36-EE-35-05-B9-DB-A8-AC-79-F4-6E-2B-8B&guestview=true>
- 2019 **Hot Models: Predicting the current and future distributions of two ambush bug species, *Phymata americana* and *Phymata pennsylvanica*.** Zhang, V.M., Punzalan, D., Rowe, L. Ontario Ecology, Ethology, and Evolution Colloquium (OE3C). Abstract: <https://vickimzhang.rbind.io/talk/oe3c-ugphymata/>

## Teaching

### INSTRUCTORSHIPS

#### Introduction to Biological Data (BIO259)

University of Toronto - Mississauga

FULL COURSE

Sep-Dec 2025

- Delivered lecture on statistical concepts (2 hours) and code-along tutorials (1 hour) weekly to undergraduate students in Biology.
- Taught the R coding language (parse, organize, manipulate, and visualize data) to complete beginners, and then used R to conduct statistics (data summaries, probability, distributions, sampling, regression, and hypothesis testing)
- Supervised 7 teaching assistants: met weekly to prepare them for weekly practicals, managed their contracts, and communicated important information to them throughout the semester.
- Note: this is a mandatory course for the Biology undergraduate program.

#### Data Mining, Modeling and Biostatistics (BINF5003)

Humber Polytechnic - International Graduate School Campus

FULL COURSE

Jan-Apr 2025

- Taught theory, concepts, and code-along classes (3 hours) weekly to mature learners that cover topics such as introduction to R, data analysis and visualization, predictive modeling, dimension reduction, and clustering
- Guide students through an independent research project
- Note: this course is one of five courses that are part of the Graduate Certificate in Clinical Bioinformatics for international students.

## Plant Ecology (BIO330)

University of Toronto - Mississauga

### FULL COURSE

Sep-Dec 2024

- Taught biweekly hour-long lectures to upper year undergraduate students that cover topics related to the population and community ecology of plants.
- Topics include: resource acquisition, growth and reproduction, mutualisms, competition, defense, invasions, disturbance, population dynamics, and community structure.

## Data Analytics and Storytelling (BINF5503)

Humber Polytechnic - Virtual

### FULL COURSE

Jan-Apr 2024

- Taught concepts and code-along lesson (3 hour class) weekly to mature learners that cover topics including data statistics and visualizations in R and Python, command line, reproducibility, interactive web apps, and scientific literacy and communication
- Note: this course is one of five courses that are part of the Graduate Certificate in Clinical Bioinformatics.

## Data Mining, Modeling and Biostatistics (BINF5003)

Humber Polytechnic - Virtual

### FULL COURSE

Sep-Dec 2023

- Taught theory and concepts (1 hour lecture) and code-along lesson (3 hour tutorial) weekly to mature learners that cover topics such as introduction to R, data analysis and visualization, predictive modeling, dimension reduction, and clustering
- Guide students through an independent research project
- Note: this course is one of five courses that are part of the Graduate Certificate in Clinical Bioinformatics.

## Quantitative Methods in R for Biology (EEB313)

University of Toronto - St. George

### HALF COURSE

Sep-Dec 2023, 2022

- Co-teach biweekly two-hour classes to help undergrad students develop statistical and technical skills in R using applied problems in ecology and evolutionary biology
- Used code-along lectures to teach syntax, functions, data management, data manipulation, visualization, modelling, statistical analysis, and simulation for solving biological problems
- Guided students through a relevant hypothesis-driven semester-long project.

## GUEST LECTURES

### Arctic Ecology (BIO332)

University of Toronto Mississauga

TITLE: INVASIVE SPECIES AT THE EDGE OF THE CANADIAN ARCTIC

2 Aug 2025

### Arctic Ecology (BIO332)

University of Toronto Mississauga

TITLE: PLANT INVASIONS AT THE EDGE OF THE CANADIAN ARCTIC

1 Aug 2024

### Arctic Ecology (BIO332)

University of Toronto Mississauga

TITLE: INVASIVE SPECIES AT THE EDGE OF THE ARCTIC

25 Jul 2023

### Plant Ecology (BIO330)

University of Toronto Mississauga

TITLE: RANGE LIMITS, INVADERS AND ENEMIES

27 Mar 2023

### Animal Behaviour Ecology (BIO328)

University of Toronto Mississauga

TITLE: RANGE SHIFTS, ROAD SALT, AND CLIMATE CHANGE

6 Mar 2023

### Arctic Ecology (BIO332)

University of Toronto Mississauga

TITLE: RANGE LIMITS, INVADERS AND ENEMIES

1 Aug 2022

### Plant Ecology (BIO330)

University of Toronto Mississauga

TITLE: RANGE LIMITS, INVADERS AND ENEMIES

23 Mar 2022

### Animal Behaviour Ecology (BIO328)

University of Toronto Mississauga

TITLE: RANGE SHIFTS, HYBRIDISATION, AND CLIMATE CHANGE (VIRTUAL)

7 Feb 2022

### Quantitative Methods in R for Biology (EEB313)

University of Toronto

TITLE: DATA VISUALIZATION IN R

28 Sep 2021

### Plant Ecology (BIO330)

University of Toronto Mississauga

TITLE: RANGE LIMITS, INVADERS AND ENEMIES (VIRTUAL)

31 Mar 2021

### Animal Behaviour Ecology (BIO328)

University of Toronto Mississauga

TITLE: RANGE SHIFTS, HYBRIDISATION, AND CLIMATE CHANGE (VIRTUAL)

2 Mar 2021

### Plant Ecology (BIO330)

University of Toronto Mississauga

TITLE: RANGE LIMITS, INVADERS AND ENEMIES (VIRTUAL)

25 Mar 2020

## TEACHING ASSISTANTSHIPS

### Arctic Ecology (BIO332)

University of Toronto Mississauga

#### FIELD

Jul 24-Aug 7, 2025

- Taught a field course to 10 students in Churchill, Manitoba
- Assisted in supervision, wildlife safety, and photodocumentation; advised independent student projects.

### Plant Ecology (BIO330)

University of Toronto Mississauga

#### TUTORIAL

Jan-Apr 2023, 2022

- Designed and taught one weekly discussion-based tutorial sections of 25 students
- Duties included: preparing and running tutorials; assisting students with course material; creating questions for quizzes and exams; marking assignments, midterm and final examinations in a timely fashion; and meeting with the instructor and other teaching assistants on a weekly basis.

### Arctic Ecology (BIO332)

University of Toronto Mississauga

#### FIELD

Jul 27-Aug 10, 2022; Jul 20-Aug 3, 2023,

Jul 27-Aug 10, 2024

- Over three years, taught a field course to a total of 20 students in Churchill, Manitoba
- Assisted in supervision, wildlife safety, and photodocumentation; advised independent student projects.

### Quantitative Methods in R for Biology (EEB313)

University of Toronto

#### LABORATORY (HYBRID)

Sep-Dec 2021

- Assisted in teaching technical, analytical, and statistical skills in R to a class of 28 students
- Troubleshooted Rcode errors during lectures; held weekly office hours.

### Plant Ecology (BIO330)

University of Toronto Mississauga

#### TUTORIAL (VIRTUAL)

Jan-Apr 2021, 2020

- Designed and taught two weekly discussion-based tutorial sections of 25 students each; affected by university closure due to COVID-19 pandemic
- Duties included: preparing and running tutorials; assisting students with course material; creating questions for quizzes and exams; marking assignments, midterm and final examinations in a timely fashion; and meeting with the instructor and other teaching assistants on a weekly basis.

### Ecology (BIO205)

University of Toronto Mississauga

#### LABORATORY

Sep-Dec 2020\*, 2019

- Taught two weekly laboratory class of 25 students; affected by university closure due to COVID-19 pandemic
- Duties included: preparing and running both indoor and field practicals; marking assignments, midterm and final examinations in a timely fashion; invigilating examinations; and meeting with the professor other teaching assistants on a weekly basis
- \*Administrative Teaching Assistant for class of 355 students. Additional duties included: responding to remark requests, granting extensions, monitoring the discussion board, and updating and managing the gradesheet.

## TECHNICAL WORKSHOPS

### Contributer, Instructor, Helper

University of Toronto and University  
of Toronto Mississauga

#### UOFT CODERS

Sep 2021-present

- Assist in programming that provides technical and statistical resources and support to graduate students and researchers through workshops, code-sharing, and co-working
- Develop, teach, and support various coding workshops for all abilities
- Lessons taught: 12; lessons helped: 11; mentees: 1.

### Statistics Crash Course

University of Toronto Mississauga

#### ARCTIC FIELD BIOLOGY (BIO332)

30 Jul 2023, 4 Aug 2024, 4 Aug 2025

- Instructed a two-hour lesson focused on R syntax, unpaired and paired t-tests, Analysis of Variance (ANOVA), and linear models to a class of undergraduate students with little to no experience.

### Introduction to R

Bioinformatics.ca

#### CANADIAN BIOINFORMATICS WORKSHOPS

26-27 Jun 2023

- Assist instructor in a two-day workshop focused on R syntax, functions, packages, and linear models for graduate students, advisors, and industry professionals with little to no experience
- Guided students and debugged code during lessons and practice sessions.

### R for Reproducible Scientific Analysis

University of Idaho

#### INSTITUTE FOR MODELING COLLABORATION AND INNOVATION (VIRTUAL)

1-3 Nov 2022

- Teach and assist three-day workshop focused on R concepts and tools, including version control, data management, manipulation, and visualization, and task automation with vectors, functions, and loops
- Materials adapted from Software Carpentries.

## Other Employment

### Test and Exam Invigilator

University of Toronto Mississauga

#### ACCESSIBILITY SERVICES

Sep 2021-present

- Provide students who require accessibility accommodations with the best possible environment in which to write quizzes, tests, and exams during the semester
- Enforce fairness and academic integrity while ensuring that accommodations and requirements for students are being followed.

### Chief Presiding Officer

University of Toronto Mississauga

#### OFFICE OF THE REGISTRAR

Dec 2021; Apr, Dec 2022; Apr, Dec 2023;

Apr 2024, Dec 2024, Apr 2025, Jun 2025

- Provided students with the best possible environment in which to write examinations during the final exam period
- Enforced exam rules and regulations with authority, and ensuring exams run smoothly
- Made announcements, respond to emergencies.

### Morrison Hall Residence Porter

University of Toronto

#### UNIVERSITY COLLEGE

Sep 2017-Apr 2019

- Act as a source of information for University College residents and guests as a Daytime and Overnight Porter
- Responded to and reported safety, maintenance, and emergency issues in residence
- Ensured the security of two residence buildings.

### Customer Experience Representative

Toronto

#### INDIGO BOOKS AND MUSIC

Oct 2015-Sep 2019

- Assisted customers to create an exceptional shopping experience, and performed various customer service tasks
- Held cashier duties, answered phone inquiries, shelved books, replenished products.

## Scientific Service

### DEPARTMENTAL COMMITTEES

#### Atwood Colloquium in Ecology and Evolution Co-Chair

University of Toronto

##### DEPARTMENT OF ECOLOGY AND EVOLUTIONARY BIOLOGY

2022\*, 2023

- Organized the annual departmental colloquium: coordinated with and delegated tasks among volunteers, communicated with invited speakers, handled administrative, scheduling, and day-of logistics
- \*Hybrid; included more technical responsibilities including assisting with online activities that seamlessly blended with in-person experiences.

#### Equity, Diversity, and Elimination of Racism (EDERD) Committee

University of Toronto Mississauga

##### DEPARTMENT OF BIOLOGY

Sep 2021-Aug 2022

- Responsible for providing oversight on community outreach, organization of a speaker series on topics related to the history, philosophy and culture of science academia, identifying and addressing both systematic and individual discriminatory matters at the departmental level
- Helped to develop, administer, and analyze responses from a department-wide survey, providing insight and making recommendations to the Chair to increase equity, diversity, and inclusion.

#### Seminar Committee

University of Toronto Mississauga

##### DEPARTMENT OF BIOLOGY

Sep 2020-Aug 2021

- Responsible for organizing weekly seminars: coordinated with invited speakers and host labs, moderated questions, and facilitated discussion during grad student lunches
- Helped establish the biannual Special Topics Seminars, featuring speakers selected by grad students that present diverse biology topics beyond the scope of research (e.g., pedagogy, communication, philosophy and history of science, policy, art, EDI, etc.).

## MENTORSHIP

### EEB Grad Mentorship Program

University of Toronto

#### GRADUATE MENTOR

2020-2023

- Total graduate mentees to date: 3.

### Grad Connect Mentorship Program

University of Toronto Mississauga

#### GRADUATE MENTOR

2019-2021

- Total mentees to date: 2 (senior Biology undergraduate students).

### Mentorship and Summer Research Program

Side By Side Agency

#### MENTOR

2020-2022

- Total mentees to date: 4; panels served to date: 4.

## Master Plant Science Team

GRADUATE MENTOR AND LIASON

- Mentee: elementary school student research teams (online).
- Sponsored by the Ecological Society of America (ESA).

*PlantingScience*

*Sep 2019-Apr 2020*

## Ecology and Evolutionary Biology Peer Mentorship Program

PEER MENTOR

- Mentee: two incoming undergraduate EEB students.

*University of Toronto*

*Oct 2018-Mar 2019*

## University College

E-MENTOR

- Mentee: two incoming undergraduate students.

*University of Toronto*

*June 2018-Sep 2018*

## LEADERSHIP

### Sport Rep

BIOLOGY GRADUATE STUDENT SOCIETY (BGSS)

- Promote physical wellbeing of graduate students. Organize active workshops and events for the Biology graduate community
- Manage volleyball intramurals team comprised of the Biology graduate students over two semesters.

*University of Toronto Mississauga*

*Jun 2023-Apr 2024*

### Administrative Executive

UoFT CODERS

- Build community between researchers in other departments through panels and social events, allowing graduate students to connect with each other and share coding and technical skills
- Perform any administrative duties, including scheduling, promotion, and communication with Coders community

*University of Toronto and University of Toronto Mississauga*

*Sep 2021-present*

### EEB Rep

BIOLOGY GRADUATE STUDENT SOCIETY (BGSS)

- Represent and engage EEB graduate students in departmental events. Contribute to event planning and execution.

*University of Toronto Mississauga*

*Jun 2020-Apr 2022*

### UTM Rep

EEB GRADUATE STUDENT ASSOCIATION (EGSA)

- Represent the EEB graduate students based at UTM and convey updates and information between campuses.

*University of Toronto*

*Jun 2020-May 2021*

### Communications Director

BIOLOGY GRADUATE STUDENT SOCIETY (BGSS)

- Conveyed informational messages between internal executives and external biology graduate students. Assisted in organizing and promoting social events.

*University of Toronto Mississauga*

*Sep 2019-May 2020*

## OUTREACH

### Site Coordinator

LET'S TALK SCIENCE (LTS)

- Engage youth in STEM learning experiences.
- Liaise with educators, schedule programming and outreach, manage, train, and support over 200 undergraduate volunteers that deliver hands-on STEM activities to K-12 students in the Peel Region.
- Organize highly-attended community events such as the Let's Talk Science Challenge and Science Rendezvous

*University of Toronto Mississauga*

*Sep 2020-Aug 2025*

### Graduate Speaker

GRAD CONNECT

- Invited. Presented on panels & answered questions during Q&A on my undergraduate research experience, my pathway to and current experience in grad school, and current research. Total panels served: 3

*University of Toronto Mississauga*

*2019-2022*

### Graduate Speaker

POST-BACC PANEL, BIOLOGY LIVING LEARNING COMMUNITY (BIO LLC)

- Invited. Presented on a panel & answered questions during the Q&A on my undergraduate research experience, my pathway to and current experience in grad school, and current research.

*University of Toronto Mississauga*

*16 Mar 2021*

### Station Scientist

CLASSROOM FIELD TRIP

- Organized a "Trees and Plants" station for a class of grade 5/6 students. Led a hike to identify common trees, and taught children about seasonality changes and how to age trees.

*Koffler Scientific Reserve, U of T*

*28 Oct 2019*

## Station Leader

ALUMNI OUTREACH DAY

Koffler Scientific Reserve, U of T

11 Oct 2019

- Organize a “Trees and Plants” station at an annual event for U of T alumni and families, with a focus on children aged 7-13.

## Volunteer

CANADIAN ASSOCIATION FOR GIRLS IN SCIENCE (CAGIS)

University of Toronto Mississauga

2019-2022

- Designed, organized, and volunteered at multiple events, both virtually and in-person.

## Student Panelist

GAINING RESEARCH EXPERIENCE IN EEB

University of Toronto

23 Jan 2019

- Invited. Presented my undergraduate research and academic experience within department to undergraduate students.

## VOLUNTEER

### Lead Volunteer

ATWOOD COLLOQUIUM IN ECOLOGY AND EVOLUTION

University of Toronto

Apr 2024, Apr 2025

- Liaise with three invited speakers and coordinate schedules
- Organize and coordinate a team of volunteers to set up refreshments, and clean up.

### Core Volunteer and Moderator

ATWOOD COLLOQUIUM IN ECOLOGY AND EVOLUTION (VIRTUAL)

University of Toronto

Apr 2021

- Assisted in the success of the colloquium on a virtual platform.

### Undergraduate Volunteer

ATWOOD COLLOQUIUM IN ECOLOGY AND EVOLUTION

University of Toronto

Apr 2018

- Assisted in the success of the colloquium as part of the set up and clean up committee.

### Volunteer

TORONTO UNDERGRADUATE LINGUISTIC CONFERENCE (TULCON)

University of Toronto

Mar 2018

- Assisted in signing in presenters, tracking conference attendees, directing attendees, and selling t-shirts as part of the Welcome and Registration Committee.

### Facilitated Study Group Leader

SOCIETY OF LINGUISTIC UNDERGRADUATES

University of Toronto

2017-2018

- Designed examination review activities for LIN101 (Introduction to Linguistics: Sound Structure), LIN102 (Introduction to Linguistics: Sentence Structure and Meaning), and LIN332 (Syntactic Patterns in Language).

## PAPER REVIEWS

Ecology Letters (2), Plant and Soil (1)

## PEDAGOGICAL TRAINING

### Data Carpentries

INSTRUCTOR TRAINING

The Carpentries

2022

- Learned to use evidence-based teaching practices in a positive environment for learners in workshops that teach fundamental data skills needed to conduct research.

## PROFESSIONAL MEMBERSHIPS

Canadian Society for Ecology and Evolution (CSEE)

The Ecological Society of America (ESA)

International Association for Landscape Ecology (IALE)



## Scholarships and Awards

2025	Josef Svaboda Graduate Fellowship Award, UTM Biology	CAD2000
2025	Alvin Singh Graduate Teaching Assistance Excellence Award, UTM Biology	CAD2000
2025	Excellence in Service Award, UTM Biology	CAD100
2025	The Harvey Prize, Department of Ecology and Evolutionary Biology	CAD1000
2024	Northern Research Fund, Churchill Northern Studies Centre	CAD500
2024	Northern Scientific Training Program, Government of Canada	CAD3,600
2023	Northern Research Fund, Churchill Northern Studies Centre	CAD731
2023	Graduate Student Research Award, Centre for Global Change Science	CAD3,763
2023	Northern Scientific Training Program, Government of Canada	CAD4,000
2023-2025	Postgraduate Scholarships – Doctoral, Natural Sciences and Engineering Research Council of Canada	CAD63,000
2022	Northern Scientific Training Program, Government of Canada	CAD4,600
2022	Northern Research Fund, Churchill Northern Studies Centre	CAD1,050
2021-2022	Canada Graduate Scholarships – Master's, Natural Sciences and Engineering Research Council of Canada	CAD17,500
2020-2021	Ontario Graduate Scholarship, Government of Ontario	CAD15,000
2021	Northern Research Fund, Churchill Northern Studies Centre	CAD1,137
2020	Northern Scientific Training Program, Government of Canada	CAD3,500
2020	Grant-in-aid of Research, Sigma Xi Fund of Canada	CAD1,400
2019	Zimmerman/Weis Graduate Award, Koffler Scientific Reserve	CAD5,500
2019	Dean's List, University of Toronto	
2019	Ann Shepard Memorial Gold Medal for Biological Sciences, University College Graduating Year Awards	CAD588
2019	Grant H. Ferguson Scholarship Fund, University College Graduating Year Awards	CAD232.52
2019	Undergraduate Student Research Award, Koffler Scientific Reserve	CAD6,000
2018-2020	Indigo Scholarship, Indigo Books and Music	CAD3,000
2015	Graduation Program Examinations Scholarship, BC Ministry of Education	CAD1,250
2015	Class of '64 Bursary, New Westminster Secondary School	CAD750
2010-2015	Honour Roll, New Westminster Secondary School	

## Skills

### Technical

MICROSOFT OFFICE – R – PYTHON – GIT – MARKDOWN – ARCMAP

### Statistical

DESCRIPTIVE – EXPLORATORY – VISUALIZATION – REGRESSION – ORDINATION – MODELLING BAYESIAN INFERENCE

### Certifications

STANDARD AND WILDERNESS FIRST AID AND CPR LEVEL C

### Licenses

ONTARIO CLASS G DRIVER'S LICENSE – ONTARIO NON-RESTRICTED FIREARMS LICENSE (POSSESSION AND ACQUISITION)

### Languages

ENGLISH (N) – FRENCH (B1) – MANDARIN CHINESE (N)

## Expertise

- ecology, northern terrestrial ecosystems, conservation
- natural history and identification of flora and wildlife
- statistics, data visualization, modelling, version control

## Education

### Doctor of Philosophy in Science Candidate (Biology)

Ontario, Canada

UNIVERSITY OF TORONTO MISSISSAUGA

Jan 2020-Dec 2025

- Thesis: Limits to Non-Native Plant Invasions in the Canadian Subarctic. Scheduled defence date: 3 Dec 2025
- Supervised by Dr. Peter Kotanen.
- NSERC Postgraduate Scholar (Doctoral), Ontario Graduate Scholarship recipient.

### Honours Bachelor of Science (with high distinction)

Ontario, Canada

UNIVERSITY OF TORONTO

Sep 2015-Jun 2019

- Double major in Ecology and Evolutionary Biology (EEB), and Environmental Biology, minor in Linguistics.
- Honour's Thesis: "Distribution and range shifts of *P. americana* and *P. pennsylvanica*". Co-supervised by Locke Rowe and David Punzalan

## Research Experience

### Researcher

University of Toronto Mississauga

KOTANEN LAB

Jan 2020-Dec 2025

- Identify, experimentally test, and solve complex questions in ecology and evolutionary biology
- Lead multiple research projects and manage all aspects of the project, including: experimental design; data collection and management; data analyses, statistics, visualization, and interpretation; report writing, manuscript publication, and data archiving; and presenting talks and seminars
- Prepare research proposals and funding applications
- Supervise and collaborate with junior researchers, undergraduate students, and hired field technicians

### Laboratory and Field Assistant

University of Toronto Mississauga

KOTANEN LAB

Sep-Dec 2019

- Gathered field materials for future experiments.
- Trained, mentored and collaborated with an undergraduate work study student.

### Researcher

Koffler Scientific Reserve, U of T

ROWE AND MCCAULEY LAB

May-Aug 2019

- Conducted field and lab research investigating the effect of de-icing road salt on aquatic ecosystems.
- Collected live organisms (dragonfly nymphs and adults of multiple species), monitored organisms daily, recorded and analyzed data.

### EEB Work Study Student

University of Toronto

FREDERICKSON LAB

Sep 2018-Feb 2019

- Managed, maintained and provided care to over 120 isogenic and mixed duckweed cultures.
- Assisted in data collection for lab projects.
- Completed other lab tasks as required

### EEB Work Study Student

University of Toronto

ROLLINSON LAB

May-Aug 2018

- Digitized field observations of reptiles into a reptile database.
- Interpreted and simplified complex observations, recognized anomalies in data records.
- Completed other lab tasks as required.

## Publications

### IN REVISION

Zhang, V.M., Kotanen, P.M.. Human-mediated soil movement risks increasing the spread of non-native species in a subarctic environment. *Neobiota*.

In revision as of: Oct 2025

## PEER-REVIEWED PUBLICATIONS

1. Zhang, V. M., & Kotanen, P. M. (2025). Low temperatures reduce establishment of new populations of invasive plants in a subarctic treeline environment. *Oecologia*, 207(10), 167. <https://doi.org/10.1007/s00442-025-05808-y>
2. Syed, O. A., Zhang, V. M., & Kotanen, P. M. (2023). Potential role of the seed bank in spreading invasive plants in a tundra-edge environment. *Botany*, 101(6), 193–199. <https://doi.org/10.1139/cjb-2023-0019>
3. Zhang, V. M., & Kotanen, P. M. (2023). Development of negative soil feedback by an invasive plant near the northern limit of its invaded range. *Plant Ecology*. <https://doi.org/10.1007/s11258-023-01330-4>
4. Zhang, V. M., Martin, R. L., & Murray, R. L. (2022). Chronic road salt exposure across life stages and the interactive effects of warming and salinity in a semiaquatic insect. *Environmental Entomology*, 51(2), 313–321. <https://doi.org/10.1093/ee/nvac014>
5. Zhang, V. M., Punzalan, D., & Rowe, L. (2020). Climate change has different predicted effects on the range shifts of two hybridizing ambush bug (Phymata, Family Reduviidae, Order Hemiptera) species. *Ecology and Evolution*, 10(21), 12036–12048. <https://doi.org/10.1002/ece3.6820>

## NON-REFEREED CONTRIBUTIONS

### Features:

- 2021 **V.M. Zhang.** Interview with an Atwood Lecturer. *The EEB Quarterly (Volume 3, Issue 2)*, page 22-25. <https://drive.google.com/file/d/1kIz41PtM1H2XL0fscIiKB7aLT26IpXqh/view>
- 2021 **V.M. Zhang.** In Review. Superior: The Return of Race Science by Angela Saini. *The EEB Quarterly (Volume 3, Issue 1)*, page 53-54. <https://drive.google.com/file/d/1G0akPI-b4pVYxTYNB9pbIVnMJVXY1x92/view>

### Editorials:

- 2024 Volume 5-Spring/Summer Issue. *The EEB Quarterly*. <https://theebquarterly.github.io/>
- 2024 Volume 5-Fall/Winter Issue. *The EEB Quarterly*. <https://theebquarterly.github.io/>
- 2023 Volume 4-Spring/Summer Issue. *The EEB Quarterly*. <https://theebquarterly.github.io/>
- 2022 Volume 4-Fall/Winter Issue. *The EEB Quarterly*. <https://theebquarterly.github.io/>

## Presentations

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### INVITED SEMINARS

- 2025 **Limits to plant invasions at the edge of the Canadian Arctic invasions.** Zhang, V.M., Kotanen, P.M. University of Toronto Mississauga Biology Seminar Series.
- 2022 **Northern invasions.** Zhang, V.M., Kotanen, P.M. National Invasive Species Awareness Week, Northwest Territories Council on Invasive Species, Pests, and Pathogens. Virtual.

## CONFERENCE TALKS

- 2025 **Human-mediated soil disturbance removes limits to plant invasions at the edge of the Canadian Arctic.** Zhang, V.M., Kotanen, P.M. Annual Meeting of the Canadian Society for Ecology and Evolution (CSEE). Sherbrooke, Quebec, Canada
- 2024 **Limits to plant invasions at the edge of the Canadian Arctic.** Zhang, V.M., Kotanen, P.M. Annual Meeting of the Canadian Society for Ecology and Evolution (CSEE). Vancouver, BC, Canada
- 2024 **Limits to plant invasions at the edge of the Canadian Arctic.** Zhang, V.M., Kotanen, P.M. Invasive Species Centre (ISC) Annual Forum. Virtual.
- 2023 **\*Limits to plant invasions at the edge of the Arctic.** Zhang, V.M., Kotanen, P.M. International Conference on Ecology and Management of Alien Plant Invasions. Pucón, Chile.
- 2023 **Limits to plant invasions at the edge of the Arctic.** Zhang, V.M., Da Silva, F., Kotanen, P.M. Invasive Species Centre (ISC) Annual Forum. Virtual.
- 2022 **Invasive Species at the Edge of the Canadian Arctic.** Zhang, V.M., Da Silva, F., Kotanen, P.M. ArcticNet Annual Scientific Meeting. Toronto, Ontario, Canada
- 2021 **Soil feedbacks in northern ecosystems invaded by non-native plants.** Zhang, V.M., Kotanen, P.M. Canadian Society for Ecology and Evolution (CSEE-SCEE) Annual Meeting. Virtual.
- 2019 **Hot Models: Projecting future climate-driven distributions of two ambush bug species, *Phymata americana* and *Phymata pennsylvanica*.** Zhang, V.M., Punzalan, D., Rowe, L. Toronto Entomologist Association (TEA) Student Symposium. Abstract: <https://vickimzhang.rbind.io/talk/tea-ugphymata/>

\* Awarded for best talk.

## CONFERENCE POSTERS

- 2020 **Climate change has different predicted effects on the range shifts of two hybridising ambush bug (*Phymata*) species.** Zhang, V.M., Punzalan, D., Rowe, L. International Association for Landscape Ecology (IALE): North America Region Virtual Meeting. iPoster: <https://2020toronto-ialena.iposteressions.com/default.aspx?s=62-71-43-36-EE-35-05-B9-DB-A8-AC-79-F4-6E-2B-8B&guestview=true>
- 2019 **Hot Models: Predicting the current and future distributions of two ambush bug species, *Phymata americana* and *Phymata pennsylvanica*.** Zhang, V.M., Punzalan, D., Rowe, L. Ontario Ecology, Ethology, and Evolution Colloquium (OE3C). Abstract: <https://vickimzhang.rbind.io/talk/oe3c-ugphymata/>

## Teaching

### INSTRUCTORSHIPS

#### Introduction to Biological Data (BIO259)

University of Toronto - Mississauga

FULL COURSE

Sep-Dec 2025

- Delivered lecture on statistical concepts (2 hours) and code-along tutorials (1 hour) weekly to undergraduate students in Biology.
- Taught the R coding language (parse, organize, manipulate, and visualize data) to complete beginners, and then used R to conduct statistics (data summaries, probability, distributions, sampling, regression, and hypothesis testing)
- Supervised 7 teaching assistants: met weekly to prepare them for weekly practicals, managed their contracts, and communicated important information to them throughout the semester.
- Note: this is a mandatory course for the Biology undergraduate program.

#### Data Mining, Modeling and Biostatistics (BINF5003)

Humber Polytechnic - International Graduate School Campus

FULL COURSE

Jan-Apr 2025

- Taught theory, concepts, and code-along classes (3 hours) weekly to mature learners that cover topics such as introduction to R, data analysis and visualization, predictive modeling, dimension reduction, and clustering
- Guide students through an independent research project
- Note: this course is one of five courses that are part of the Graduate Certificate in Clinical Bioinformatics for international students.

## Plant Ecology (BIO330)

University of Toronto - Mississauga

### FULL COURSE

Sep-Dec 2024

- Taught biweekly hour-long lectures to upper year undergraduate students that cover topics related to the population and community ecology of plants.
- Topics include: resource acquisition, growth and reproduction, mutualisms, competition, defense, invasions, disturbance, population dynamics, and community structure.

## Data Analytics and Storytelling (BINF5503)

Humber Polytechnic - Virtual

### FULL COURSE

Jan-Apr 2024

- Taught concepts and code-along lesson (3 hour class) weekly to mature learners that cover topics including data statistics and visualizations in R and Python, command line, reproducibility, interactive web apps, and scientific literacy and communication
- Note: this course is one of five courses that are part of the Graduate Certificate in Clinical Bioinformatics.

## Data Mining, Modeling and Biostatistics (BINF5003)

Humber Polytechnic - Virtual

### FULL COURSE

Sep-Dec 2023

- Taught theory and concepts (1 hour lecture) and code-along lesson (3 hour tutorial) weekly to mature learners that cover topics such as introduction to R, data analysis and visualization, predictive modeling, dimension reduction, and clustering
- Guide students through an independent research project
- Note: this course is one of five courses that are part of the Graduate Certificate in Clinical Bioinformatics.

## Quantitative Methods in R for Biology (EEB313)

University of Toronto - St. George

### HALF COURSE

Sep-Dec 2023, 2022

- Co-teach biweekly two-hour classes to help undergrad students develop statistical and technical skills in R using applied problems in ecology and evolutionary biology
- Used code-along lectures to teach syntax, functions, data management, data manipulation, visualization, modelling, statistical analysis, and simulation for solving biological problems
- Guided students through a relevant hypothesis-driven semester-long project.

## GUEST LECTURES

### Arctic Ecology (BIO332)

University of Toronto Mississauga

TITLE: INVASIVE SPECIES AT THE EDGE OF THE CANADIAN ARCTIC

2 Aug 2025

### Arctic Ecology (BIO332)

University of Toronto Mississauga

TITLE: PLANT INVASIONS AT THE EDGE OF THE CANADIAN ARCTIC

1 Aug 2024

### Arctic Ecology (BIO332)

University of Toronto Mississauga

TITLE: INVASIVE SPECIES AT THE EDGE OF THE ARCTIC

25 Jul 2023

### Plant Ecology (BIO330)

University of Toronto Mississauga

TITLE: RANGE LIMITS, INVADERS AND ENEMIES

27 Mar 2023

### Animal Behaviour Ecology (BIO328)

University of Toronto Mississauga

TITLE: RANGE SHIFTS, ROAD SALT, AND CLIMATE CHANGE

6 Mar 2023

### Arctic Ecology (BIO332)

University of Toronto Mississauga

TITLE: RANGE LIMITS, INVADERS AND ENEMIES

1 Aug 2022

### Plant Ecology (BIO330)

University of Toronto Mississauga

TITLE: RANGE LIMITS, INVADERS AND ENEMIES

23 Mar 2022

### Animal Behaviour Ecology (BIO328)

University of Toronto Mississauga

TITLE: RANGE SHIFTS, HYBRIDISATION, AND CLIMATE CHANGE (VIRTUAL)

7 Feb 2022

### Quantitative Methods in R for Biology (EEB313)

University of Toronto

TITLE: DATA VISUALIZATION IN R

28 Sep 2021

### Plant Ecology (BIO330)

University of Toronto Mississauga

TITLE: RANGE LIMITS, INVADERS AND ENEMIES (VIRTUAL)

31 Mar 2021

### Animal Behaviour Ecology (BIO328)

University of Toronto Mississauga

TITLE: RANGE SHIFTS, HYBRIDISATION, AND CLIMATE CHANGE (VIRTUAL)

2 Mar 2021

### Plant Ecology (BIO330)

University of Toronto Mississauga

TITLE: RANGE LIMITS, INVADERS AND ENEMIES (VIRTUAL)

25 Mar 2020

## TEACHING ASSISTANTSHIPS

### Arctic Ecology (BIO332)

University of Toronto Mississauga

#### FIELD

Jul 24-Aug 7, 2025

- Taught a field course to 10 students in Churchill, Manitoba
- Assisted in supervision, wildlife safety, and photodocumentation; advised independent student projects.

### Plant Ecology (BIO330)

University of Toronto Mississauga

#### TUTORIAL

Jan-Apr 2023, 2022

- Designed and taught one weekly discussion-based tutorial sections of 25 students
- Duties included: preparing and running tutorials; assisting students with course material; creating questions for quizzes and exams; marking assignments, midterm and final examinations in a timely fashion; and meeting with the instructor and other teaching assistants on a weekly basis.

### Arctic Ecology (BIO332)

University of Toronto Mississauga

#### FIELD

Jul 27-Aug 10, 2022; Jul 20-Aug 3, 2023,

Jul 27-Aug 10, 2024

- Over three years, taught a field course to a total of 20 students in Churchill, Manitoba
- Assisted in supervision, wildlife safety, and photodocumentation; advised independent student projects.

### Quantitative Methods in R for Biology (EEB313)

University of Toronto

#### LABORATORY (HYBRID)

Sep-Dec 2021

- Assisted in teaching technical, analytical, and statistical skills in R to a class of 28 students
- Troubleshooted Rcode errors during lectures; held weekly office hours.

### Plant Ecology (BIO330)

University of Toronto Mississauga

#### TUTORIAL (VIRTUAL)

Jan-Apr 2021, 2020

- Designed and taught two weekly discussion-based tutorial sections of 25 students each; affected by university closure due to COVID-19 pandemic
- Duties included: preparing and running tutorials; assisting students with course material; creating questions for quizzes and exams; marking assignments, midterm and final examinations in a timely fashion; and meeting with the instructor and other teaching assistants on a weekly basis.

### Ecology (BIO205)

University of Toronto Mississauga

#### LABORATORY

Sep-Dec 2020\*, 2019

- Taught two weekly laboratory class of 25 students; affected by university closure due to COVID-19 pandemic
- Duties included: preparing and running both indoor and field practicals; marking assignments, midterm and final examinations in a timely fashion; invigilating examinations; and meeting with the professor other teaching assistants on a weekly basis
- \*Administrative Teaching Assistant for class of 355 students. Additional duties included: responding to remark requests, granting extensions, monitoring the discussion board, and updating and managing the gradesheet.

## TECHNICAL WORKSHOPS

### Contributer, Instructor, Helper

University of Toronto and University  
of Toronto Mississauga

#### UOFT CODERS

Sep 2021-present

- Assist in programming that provides technical and statistical resources and support to graduate students and researchers through workshops, code-sharing, and co-working
- Develop, teach, and support various coding workshops for all abilities
- Lessons taught: 12; lessons helped: 11; mentees: 1.

### Statistics Crash Course

University of Toronto Mississauga

#### ARCTIC FIELD BIOLOGY (BIO332)

30 Jul 2023, 4 Aug 2024, 4 Aug 2025

- Instructed a two-hour lesson focused on R syntax, unpaired and paired t-tests, Analysis of Variance (ANOVA), and linear models to a class of undergraduate students with little to no experience.

### Introduction to R

Bioinformatics.ca

#### CANADIAN BIOINFORMATICS WORKSHOPS

26-27 Jun 2023

- Assist instructor in a two-day workshop focused on R syntax, functions, packages, and linear models for graduate students, advisors, and industry professionals with little to no experience
- Guided students and debugged code during lessons and practice sessions.

### R for Reproducible Scientific Analysis

University of Idaho

#### INSTITUTE FOR MODELING COLLABORATION AND INNOVATION (VIRTUAL)

1-3 Nov 2022

- Teach and assist three-day workshop focused on R concepts and tools, including version control, data management, manipulation, and visualization, and task automation with vectors, functions, and loops
- Materials adapted from Software Carpentries.

## Other Employment

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### Test and Exam Invigilator

University of Toronto Mississauga

#### ACCESSIBILITY SERVICES

Sep 2021-present

- Provide students who require accessibility accommodations with the best possible environment in which to write quizzes, tests, and exams during the semester
- Enforce fairness and academic integrity while ensuring that accommodations and requirements for students are being followed.

### Chief Presiding Officer

University of Toronto Mississauga

#### OFFICE OF THE REGISTRAR

Dec 2021; Apr, Dec 2022; Apr, Dec 2023;

Apr 2024, Dec 2024, Apr 2025, Jun 2025

- Provided students with the best possible environment in which to write examinations during the final exam period
- Enforced exam rules and regulations with authority, and ensuring exams run smoothly
- Made announcements, respond to emergencies.

### Morrison Hall Residence Porter

University of Toronto

#### UNIVERSITY COLLEGE

Sep 2017-Apr 2019

- Act as a source of information for University College residents and guests as a Daytime and Overnight Porter
- Responded to and reported safety, maintenance, and emergency issues in residence
- Ensured the security of two residence buildings.

### Customer Experience Representative

Toronto

#### INDIGO BOOKS AND MUSIC

Oct 2015-Sep 2019

- Assisted customers to create an exceptional shopping experience, and performed various customer service tasks
- Held cashier duties, answered phone inquiries, shelved books, replenished products.

## Scientific Service

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### DEPARTMENTAL COMMITTEES

#### Atwood Colloquium in Ecology and Evolution Co-Chair

University of Toronto

##### DEPARTMENT OF ECOLOGY AND EVOLUTIONARY BIOLOGY

2022\*, 2023

- Organized the annual departmental colloquium: coordinated with and delegated tasks among volunteers, communicated with invited speakers, handled administrative, scheduling, and day-of logistics
- \*Hybrid; included more technical responsibilities including assisting with online activities that seamlessly blended with in-person experiences.

#### Equity, Diversity, and Elimination of Racism (EDERD) Committee

University of Toronto Mississauga

##### DEPARTMENT OF BIOLOGY

Sep 2021-Aug 2022

- Responsible for providing oversight on community outreach, organization of a speaker series on topics related to the history, philosophy and culture of science academia, identifying and addressing both systematic and individual discriminatory matters at the departmental level
- Helped to develop, administer, and analyze responses from a department-wide survey, providing insight and making recommendations to the Chair to increase equity, diversity, and inclusion.

#### Seminar Committee

University of Toronto Mississauga

##### DEPARTMENT OF BIOLOGY

Sep 2020-Aug 2021

- Responsible for organizing weekly seminars: coordinated with invited speakers and host labs, moderated questions, and facilitated discussion during grad student lunches
- Helped establish the biannual Special Topics Seminars, featuring speakers selected by grad students that present diverse biology topics beyond the scope of research (e.g., pedagogy, communication, philosophy and history of science, policy, art, EDI, etc.).

## MENTORSHIP

### EEB Grad Mentorship Program

University of Toronto

#### GRADUATE MENTOR

2020-2023

- Total graduate mentees to date: 3.

### Grad Connect Mentorship Program

University of Toronto Mississauga

#### GRADUATE MENTOR

2019-2021

- Total mentees to date: 2 (senior Biology undergraduate students).

### Mentorship and Summer Research Program

Side By Side Agency

#### MENTOR

2020-2022

- Total mentees to date: 4; panels served to date: 4.

## Master Plant Science Team

GRADUATE MENTOR AND LIASON

- Mentee: elementary school student research teams (online).
- Sponsored by the Ecological Society of America (ESA).

*PlantingScience*

*Sep 2019-Apr 2020*

## Ecology and Evolutionary Biology Peer Mentorship Program

PEER MENTOR

- Mentee: two incoming undergraduate EEB students.

*University of Toronto*

*Oct 2018-Mar 2019*

## University College

E-MENTOR

- Mentee: two incoming undergraduate students.

*University of Toronto*

*June 2018-Sep 2018*

## LEADERSHIP

### Sport Rep

BIOLOGY GRADUATE STUDENT SOCIETY (BGSS)

- Promote physical wellbeing of graduate students. Organize active workshops and events for the Biology graduate community
- Manage volleyball intramurals team comprised of the Biology graduate students over two semesters.

*University of Toronto Mississauga*

*Jun 2023-Apr 2024*

### Administrative Executive

UoFT CODERS

- Build community between researchers in other departments through panels and social events, allowing graduate students to connect with each other and share coding and technical skills
- Perform any administrative duties, including scheduling, promotion, and communication with Coders community

*University of Toronto and University of Toronto Mississauga*

*Sep 2021-present*

### EEB Rep

BIOLOGY GRADUATE STUDENT SOCIETY (BGSS)

- Represent and engage EEB graduate students in departmental events. Contribute to event planning and execution.

*University of Toronto Mississauga*

*Jun 2020-Apr 2022*

### UTM Rep

EEB GRADUATE STUDENT ASSOCIATION (EGSA)

- Represent the EEB graduate students based at UTM and convey updates and information between campuses.

*University of Toronto*

*Jun 2020-May 2021*

### Communications Director

BIOLOGY GRADUATE STUDENT SOCIETY (BGSS)

- Conveyed informational messages between internal executives and external biology graduate students. Assisted in organizing and promoting social events.

*University of Toronto Mississauga*

*Sep 2019-May 2020*

## OUTREACH

### Site Coordinator

LET'S TALK SCIENCE (LTS)

- Engage youth in STEM learning experiences.
- Liaise with educators, schedule programming and outreach, manage, train, and support over 200 undergraduate volunteers that deliver hands-on STEM activities to K-12 students in the Peel Region.
- Organize highly-attended community events such as the Let's Talk Science Challenge and Science Rendezvous

*University of Toronto Mississauga*

*Sep 2020-Aug 2025*

### Graduate Speaker

GRAD CONNECT

- Invited. Presented on panels & answered questions during Q&A on my undergraduate research experience, my pathway to and current experience in grad school, and current research. Total panels served: 3

*University of Toronto Mississauga*

*2019-2022*

### Graduate Speaker

POST-BACC PANEL, BIOLOGY LIVING LEARNING COMMUNITY (BIO LLC)

- Invited. Presented on a panel & answered questions during the Q&A on my undergraduate research experience, my pathway to and current experience in grad school, and current research.

*University of Toronto Mississauga*

*16 Mar 2021*

### Station Scientist

CLASSROOM FIELD TRIP

- Organized a "Trees and Plants" station for a class of grade 5/6 students. Led a hike to identify common trees, and taught children about seasonality changes and how to age trees.

*Koffler Scientific Reserve, U of T*

*28 Oct 2019*



## Station Leader

ALUMNI OUTREACH DAY

Koffler Scientific Reserve, U of T

11 Oct 2019

- Organize a “Trees and Plants” station at an annual event for U of T alumni and families, with a focus on children aged 7-13.

## Volunteer

CANADIAN ASSOCIATION FOR GIRLS IN SCIENCE (CAGIS)

University of Toronto Mississauga

2019-2022

- Designed, organized, and volunteered at multiple events, both virtually and in-person.

## Student Panelist

GAINING RESEARCH EXPERIENCE IN EEB

University of Toronto

23 Jan 2019

- Invited. Presented my undergraduate research and academic experience within department to undergraduate students.

## VOLUNTEER

### Lead Volunteer

ATWOOD COLLOQUIUM IN ECOLOGY AND EVOLUTION

University of Toronto

Apr 2024, Apr 2025

- Liaise with three invited speakers and coordinate schedules
- Organize and coordinate a team of volunteers to set up refreshments, and clean up.

### Core Volunteer and Moderator

ATWOOD COLLOQUIUM IN ECOLOGY AND EVOLUTION (VIRTUAL)

University of Toronto

Apr 2021

- Assisted in the success of the colloquium on a virtual platform.

### Undergraduate Volunteer

ATWOOD COLLOQUIUM IN ECOLOGY AND EVOLUTION

University of Toronto

Apr 2018

- Assisted in the success of the colloquium as part of the set up and clean up committee.

### Volunteer

TORONTO UNDERGRADUATE LINGUISTIC CONFERENCE (TULCON)

University of Toronto

Mar 2018

- Assisted in signing in presenters, tracking conference attendees, directing attendees, and selling t-shirts as part of the Welcome and Registration Committee.

### Facilitated Study Group Leader

SOCIETY OF LINGUISTIC UNDERGRADUATES

University of Toronto

2017-2018

- Designed examination review activities for LIN101 (Introduction to Linguistics: Sound Structure), LIN102 (Introduction to Linguistics: Sentence Structure and Meaning), and LIN332 (Syntactic Patterns in Language).

## PAPER REVIEWS

Ecology Letters (2), Plant and Soil (1)

## PEDAGOGICAL TRAINING

### Data Carpentries

INSTRUCTOR TRAINING

The Carpentries

2022

- Learned to use evidence-based teaching practices in a positive environment for learners in workshops that teach fundamental data skills needed to conduct research.

## PROFESSIONAL MEMBERSHIPS

Canadian Society for Ecology and Evolution (CSEE)

The Ecological Society of America (ESA)

International Association for Landscape Ecology (IALE)

## Scholarships and Awards

2025	Josef Svaboda Graduate Fellowship Award, UTM Biology	CAD2000
2025	Alvin Singh Graduate Teaching Assistance Excellence Award, UTM Biology	CAD2000
2025	Excellence in Service Award, UTM Biology	CAD100
2025	The Harvey Prize, Department of Ecology and Evolutionary Biology	CAD1000
2024	Northern Research Fund, Churchill Northern Studies Centre	CAD500
2024	Northern Scientific Training Program, Government of Canada	CAD3,600
2023	Northern Research Fund, Churchill Northern Studies Centre	CAD731
2023	Graduate Student Research Award, Centre for Global Change Science	CAD3,763
2023	Northern Scientific Training Program, Government of Canada	CAD4,000
2023-2025	Postgraduate Scholarships – Doctoral, Natural Sciences and Engineering Research Council of Canada	CAD63,000
2022	Northern Scientific Training Program, Government of Canada	CAD4,600
2022	Northern Research Fund, Churchill Northern Studies Centre	CAD1,050
2021-2022	Canada Graduate Scholarships – Master's, Natural Sciences and Engineering Research Council of Canada	CAD17,500
2020-2021	Ontario Graduate Scholarship, Government of Ontario	CAD15,000
2021	Northern Research Fund, Churchill Northern Studies Centre	CAD1,137
2020	Northern Scientific Training Program, Government of Canada	CAD3,500
2020	Grant-in-aid of Research, Sigma Xi Fund of Canada	CAD1,400
2019	Zimmerman/Weis Graduate Award, Koffler Scientific Reserve	CAD5,500
2019	Dean's List, University of Toronto	
2019	Ann Shepard Memorial Gold Medal for Biological Sciences, University College Graduating Year Awards	CAD588
2019	Grant H. Ferguson Scholarship Fund, University College Graduating Year Awards	CAD232.52
2019	Undergraduate Student Research Award, Koffler Scientific Reserve	CAD6,000
2018-2020	Indigo Scholarship, Indigo Books and Music	CAD3,000
2015	Graduation Program Examinations Scholarship, BC Ministry of Education	CAD1,250
2015	Class of '64 Bursary, New Westminster Secondary School	CAD750
2010-2015	Honour Roll, New Westminster Secondary School	

## Skills

### Technical

MICROSOFT OFFICE – R – PYTHON – GIT – MARKDOWN – ARCMAP

### Statistical

DESCRIPTIVE – EXPLORATORY – VISUALIZATION – REGRESSION – ORDINATION – MODELLING BAYESIAN INFERENCE

### Certifications

STANDARD AND WILDERNESS FIRST AID AND CPR LEVEL C

### Licenses

ONTARIO CLASS G DRIVER'S LICENSE – ONTARIO NON-RESTRICTED FIREARMS LICENSE (POSSESSION AND ACQUISITION)

### Languages

ENGLISH (N) – FRENCH (B1) – MANDARIN CHINESE (N)