

Vicki Mengyuan Zhang

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RESEARCH INTERESTS

Ecology (specifically community ecology, species distributions, range shifts); invasive species in the subarctic and tundra; conservation; biodiversity; climate change; sustainability

EDUCATION

- Jan 2020–Jun 2021** **Master of Science**, University of Toronto Mississauga (UTM)
Focus of Study: Ecology and Evolutionary Biology (EEB)
Thesis: Invasive species in the subarctic (in progress). Supervised by Dr. Peter Kotanen.
- Sep 2015–Apr 2019** **Honours Bachelor of Science** (with high distinction), University of Toronto
Program of Study: Ecology & Evolutionary Biology Major; Environmental Biology Major; Linguistics Minor.
Thesis: “Distribution and range shifts of *P. americana* and *P. pennsylvanica*”.
Co-supervised by Locke Rowe and David Punzalan.

PROFESSIONAL EMPLOYMENT

- Sep 2019–Dec 2019** **Laboratory and Field Assistant**, Kotanen Lab | U of T
Collected seeds for experiments. Train, mentor and collaborate with an undergraduate work-study student.
- May 2019–Aug 2019** **Researcher**, Rowe and McCauley Lab at the Koffler Scientific Reserve (KSR)
Conducted field and lab research investigating the effect of de-icing road salt on aquatic ecosystems. Collected organisms (dragonfly nymphs and adults of multiple species); monitored organisms daily. Recorded and analyzed data. Funded by the KSR USRA.
- Sep 2018–Feb 2019** **EEB Work Study Student**, Frederickson Lab | U of T
Received training on laboratory procedures, equipment and current research. Managed, maintained and provided care to over 120 isogenic and mixed duckweed cultures. Assisted in data collection for graduate students’ projects. Attended lab meetings and contributed to discussions and presentations. Completed other lab tasks when applicable.
- May–Aug 2018** **EEB Work Study Student**, Rollinson Lab | U of T
Inputted and digitized field observations of reptiles into a reptile database. Interpreted and simplified complex observations, recognized anomalies in data records, learned about local reptiles and amphibians. Assisted in other lab work when applicable.

SCIENTIFIC CONTRIBUTIONS

Refereed Publications

Submitted **VM Zhang**, D Punzalan, L Rowe. May 2, 2020. Climate change has different predicted effects on the range shifts of two hybridising ambush bug (*Phymata*) species. *Ecology and Evolution*, pp. 1-26.

Presentations

- 10-14 May 2020** *iPoster*, IALE-NA Annual Meeting Virtual Conference¹
 “Climate change has different predicted effects on the range shifts of two hybridising ambush bug (*Phymata*) species.”
- 2-4 May 2019** *Poster Presentation*, Ontario Ecology, Ethology, and Evolution Colloquium
 “Hot Models: predicting the current and future distributions of two ambush bug species, *Phymata americana* and *Phymata pennsylvanica*”.
- 5 Apr 2019** *Poster Presentation*, EEB Undergraduate Research Fair
 “Hot Models: predicting the current and future distributions of two ambush bug species, *Phymata americana* and *Phymata pennsylvanica*” at the annual department-wide research fair.
- 23 Mar 2019** *Speaker*, Toronto Entomologist’s Association Student Symposium
 Invited. Talk: “Hot Models: projecting future climate-driven distributions of two ambush bug species, *Phymata americana* and *Phymata pennsylvanica*”.

TEACHING

Class Lectures

25 Mar 2020 *Guest Lecturer*, BIO330H5 (Plant Ecology) | UTM
 Designed and delivered a 50-minute electronic² guest lecture focused on range limits.

Teaching Assistantships

Jan 2020–Apr 2020 *Teaching Assistant*, BIO330H5 (Plant Ecology)² | UTM
 Designed and taught two weekly discussion-based tutorial sections. Duties included: preparing and running tutorials; assisting students with course material; marking assignments, midterm and final examinations; and meeting with the instructor and other teaching assistants on a weekly basis.

Sep 2019–Dec 2019 *Sessional Instructional Assistant*, BIO205H5 (Ecology), UTM
 Taught two weekly laboratory sections. Duties included: preparing and running both indoor and field practicals; marking assignments, midterm and final examinations; invigilating examinations; and meeting with the instructor and other teaching assistants on a weekly basis.

¹ Affected by COVID-19

² Affected by university closure due to COVID19 pandemic

SCIENTIFIC SERVICE
Mentorship

- Oct 2019–Mar 2020** **Grad Mentor**, Grad Connect Mentorship Program, UTM
Mentor a senior undergraduate student in the department. Meet bimonthly to discuss graduate school, experiences, and hurdles in school or professional employment.
- Sep 2019–Mar 2020** **Scientist Mentor and Liason**, Master Plant Science Team, PlantingScience
Mentor student research teams online. Assist on student projects and inspire appreciation for science and plants. Sponsored by the Ecological Society of America (ESA).
- Oct 2018–Mar 2019** **Peer Mentor**, EEB Peer Mentorship Program | U of T
Assisted two incoming 2nd year EEB students integrate into EEB community, shared experiences, ensured mentees are aware of opportunities and resources. Attended events, workshops and lab meetings with mentees.
- Jun 2018–Sep 2018** **E-Mentor**, University College | U of T
Assisted incoming UC freshmen prepare for and transition into first year by providing a valuable personal connection, information about events, referrals to campus resources. Answered all emails and questions.

Leadership

- Sep 2019–present** **Communications Director**, Biology Graduate Student Society (BGSS) | UTM
Convey informational messages between internal executives and external biology graduate students. Assist in organizing and promoting social events.
- Sep 2019–present** **CUPE Steward**, EEB Graduate Student Association (EGSA) | U of T
Relay information on Union updates and benefit coverage to graduate student employees. Attend steward's council meetings. Run information on sessions on healthcare and other benefits.
- Apr 2018–Mar 2020** **President**, U of T Table Tennis Club (UTTTC) | U of T
Act as the spokesperson for the club externally. Responsible for the organization, administration and continuity³ of the club. Make important decisions regarding all aspects of the club, prepare and follow a detailed schedule of the club for an academic year, delegate duties among executive members. Ensure availability in supporting other executives in their role.
Previous executive roles: Vice-President (2017-2018)
Public Relations Officer (2016-2017)

Outreach and Volunteer

- 7 Feb 2020** **Graduate Speaker**, Research Scholars Fair | UTM
Invited. Shared my undergraduate research experience, and my pathway to and current experience in grad school. Discussed my involvement with mentorship.

³ March and April 2020 events affected by university closure due to COVID19 pandemic; made necessary changes to year-end events and executive elections.

- 18 Nov 2019** *Graduate Speaker*, Meet the Grad Night | UTM
Invited. Presented my previous research and academic experience, network within the science community, discuss options and opportunities with undergraduate students.
- 28 Oct 2019** *Station Scientist*, Classroom Field Trip | KSR
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.
- 11 Oct 2019** *Scientist*, Alumni Outreach | UTM
Organized a “Trees and Plants” station at an annual event for U of T alumni and families, with a focus on children aged 7-13. Led a tree walk to identify common trees and age trees, and taught children how to press leaves and flowers.
- Sep 2019–present** *Canadian Association for Girls in Science (CAGIS)* | Mississauga Chapter
Promote, educate and support interest in STEM in girls aged 7-16. Act as the liaison between girls and professionals at their workplace. Assist in organizing experiential and fun events.
- 16–20 Sep 2019** *Let’s Talk Science Volunteer*, Science Literacy Week | UTM
Volunteered at a booth and communicated ocean- and space-related science topics.
- 23 Jan 2019** *Student Panelist*, Gaining Research Experience in EEB | U of T
Invited. Spoke on a panel about my personal research experience to an undergraduate audience.
- 13–14 Apr 2018** *Volunteer*, Atwood Colloquium in Ecology and Evolution | U of T
Assisted in the success of the colloquium as part of the set up and clean up committee. Listened to a variety of talks in between tasks.
- Mar 2018** *Volunteer*, Toronto Undergraduate Linguistic Conference (TULCON) | U of T
Assisted in signing in presenters, tracking conference attendees, directing attendees, and selling t-shirts as part of the Welcome and Registration Committee.
- 2017–2018** *Facilitated Study Group Leader*, Society of Linguistic Undergraduates | U of T
Designed fun and unique activities for LIN101 (Introduction to Linguistics: Sound Structure), LIN102 (Introduction to Linguistics: Sentence Structure and Meaning), and LIN332 (Syntactic Patterns in Language). Led a class of students and helped them review material for upcoming examinations.
- 2012–2016** *Peer Tutor and Coordinator*, Math Elite | New Westminster
Tutored middle and high school students up to three times a week after school. Coordinated, led and taught a class of student-athletes. Taught and strengthened skills in math, sciences, social studies, English and French.

PROFESSIONAL MEMBERSHIP

Canadian Society for Ecology and Evolution (CSEE);
 The Ecological Society of America (ESA);
 International Association for Landscape Ecology (IALE).

SCHOLARSHIPS AND AWARDS

2020	<i>Sigma Xi Grant-in-Aid of Research</i> Awarded by the Sigma Xi Fund of Canada to partially fund equipment for my master's field biology research. Valued at \$1400 over 1 year.
2019	<i>Weis/Zimmerman Koffler Scientific Reserve Graduate Scholarship</i> Awarded by KSR to fund field biology research. Valued at ~\$5500.
2019	<i>University College Graduating Year Awards</i> Ann Shepard Memorial Gold Medal for Biological Sciences. Valued at \$588. Grant H. Ferguson Scholarship Fund. Valued at \$232.52.
2019	<i>Koffler Scientific Reserve Undergraduate Student Research Award</i> Awarded by KSR to fund an independent undergraduate summer research project. Valued at \$6000 over 4 months.
2018	<i>Indigo Scholarship</i> Awarded by Indigo for an original essay. Valued at \$3000 over 3 years.
2015	<i>BC Ministry of Education Scholarship</i> Awarded for academic achievement in provincial examinations. Valued at \$1000.
2015	<i>Class of '64 Bursary</i> Awarded for student achievement and volunteer work. Valued at \$750.
2010–2015	<i>Honour Roll</i> International Baccalaureate Diploma, New Westminster Secondary School.

SKILLS

<i>Software</i>	Microsoft Office R and RStudio Python Maxent
<i>Certifications</i>	First Aid and CPR Level C, Canadian Red Cross Restricted Firearms License, Ontario Workplace Hazardous Materials Information System (WHMIS)
<i>Fluent languages</i>	English Mandarin Chinese

