



KRISTEN K. BROCHU

EDUCATION

CURRENT POSITION

Postdoctoral Scholar
 Penn State University
 Department of Entomology
 548 ASI Building
 University Park, PA, 16802
 607-279-9132
kkb90@psu.edu
 @bugAdvocate
www.kristenbrochu.com

EXPERTISE

Phylogenetics
 Bioinformatics
 Insect Diversity
 Community Ecology
 Microbiology
 Chemical Ecology
 Biology Teaching
 Science Communication

SKILLS

Fluent English
 Intermediate French
 Beginner Spanish
 Matlab
 Python
 R
 Java
 Perl
 Advanced Open Water Diver
 Basic Wildlife Rehabilitation

AD HOC REVIEWER

Scientific Reports
 Economic Entomology
 Journal of Chemical Ecology

- 2012-18 PhD, Department of Entomology, Cornell University, Ithaca, New York.
Advisor: Bryan Danforth
Dissertation: Differential impacts of pollen quality and microbial communities on generalist and specialist bees visiting a shared food resource.
- 2009-11 MSc, Department of Ecology and Evolutionary Biology, University of Toronto Scarborough, Toronto, Ontario.
Advisor: Nathan Lovejoy
Thesis: Molecular phylogenetics of the Neotropical electric knifefish genus *Gymnotus* (Gymnotidae, Teleostei): biogeography and signal evolution of the trans-Andean species. < <http://hdl.handle.net/1807/30525> >
- 2005-08 BSc, Wildlife Biology, Faculty of Agricultural and Environmental Sciences, McGill University, Montreal, Quebec.

PUBLICATIONS

- 2020 **Brochu K.K.**, van Dyke M.T., Milano N.J., Petersen J.D., McArt S.H., Nault B.A., Kessler A., and Danforth B.N. Pollen defenses negatively impact foraging and fitness in a generalist bee (*Bombus impatiens*: Apidae). *Scientific Reports*, 10: 3112. < <https://doi.org/10.1038/s41598-020-58274-2> >
- 2019 Van Nynatten A., Janzen F.H., **Brochu K.**, Maldonado-Ocampo J.A., Crampton W.G.R., Chang B.S.W., and Lovejoy N.R. To see or not to see: molecular evolution of the rhodopsin visual pigment in neotropical electric fishes. *Proceedings of the Royal Society B*, 286: 20191182. < <https://doi.org/10.1098/rspb.2019.1182> >
- 2014 Maguire D.Y., Robert K., **Brochu K.**, Larrivée M., Buddle C.M., and Wheeler, T.A. Vertical stratification of beetles (Coleoptera) and flies (Diptera) in temperate forest canopies. *Environmental Entomology*, 43: 9-17. < <http://dx.doi.org/10.1603/EN13056> >
- 2009 **Brochu K.**, and Wheeler T.A. Systematics and ecology of the Nearctic species of *Neophyllomyza* (Diptera: Milichiidae). *The Canadian Entomologist*, 141:103-111. < <http://dx.doi.org/10.4039/n09-001> >

MANUSCRIPTS UNDER REVIEW

Brochu, K.; and Danforth, B.N. (*Accepted at Microbial Ecology*) Microbes in the nests of a solitary specialist ground-nesting bee (*Peponapis pruinosa*) are diverse, stable, and distinct.

FORTHCOMING MANUSCRIPTS

Brochu, K.; Kessler, A.; and Danforth, B.N. (*In prep for Oecologia*) Unique chemical signatures of floral rewards: Variation impacts specialist, but not generalist, bee foraging choices.

Brochu, K.; and Williams, K. (*In prep for American Entomologist*) Fear and Loathing in the Classroom: How Student Attitudes About Insects Affect Learning.

Brochu, K.; Maldonado-Ocampo J.A., Crampton W.G.R., and Lovejoy N.R. (*In prep for Proceedings of the Royal Society B*) Biogeographic evidence for electrical crypsis in a Neotropical knifefish (Gymnotiformes: *Gymnotus*).

PROFESSIONAL EXPERIENCE

2018-20 Postdoctoral Scholar, Pennsylvania State University, PA.
2011-12 Laboratory Technician, University of Toronto, ON.
2008 Databasing Contractor, Natural Resources Canada, Lyman Entomological Museum (LEM), QC.

MENTORED STUDENTS

2018-20 **Project Advisor.** Ginamaria Roman, MSc Student. Pennsylvania State University, PA.
2019 **Summer Supervisor.** Mila Paiva, Undergraduate. Pennsylvania State University, PA.
2018-19 **Graduate Career Mentor.** Trey Ramsey, Master of Profession Studies Candidate in Public Garden Leadership. Cornell University, NY.

TEACHING

2019 **Guest Lecturer,** *Pollinator Behaviour*, Animal Behaviour, University of the Bahamas, Nassau, New Providence, The Bahamas.
2018 **Guest Lecturer,** *Pollinator Behaviour*, Animal Behaviour, University of the Bahamas North, Freeport, Grand Bahama, The Bahamas.
2017 **Guest Lecturer,** *Insects in Art and Popular Culture*, Alien Empire: Bizarre Biology of Bugs, Cornell University, NY.
2017 **Guest Lecturer,** *Pollination*, Alien Empire: Bizarre Biology of Bugs, Cornell University, NY.
2016 **Teaching Assistant,** Alien Empire: Bizarre Biology of Bugs, Cornell University, NY.
2016 **Guest Lecturer,** *Subsocial Insects*, Alien Empire: Bizarre Biology of Bugs, Cornell University, NY.
2015 **Teaching Assistant,** Insect Diversity and Evolution, Cornell University, NY.
2015 **Guest Lecturer,** *Phylogeny and Insect-Plant Interactions*, Insect Diversity and

- Evolution, Cornell University, NY.
- 2015 **Guest Lecturer**, *Pollinator Behavior*, Insect Behavior, Cornell University, NY.
- 2015 **Teaching Assistant**, Tropical Field Entomology, Cornell University, NY.
- 2015 **Guest Lecturer**, *Insect Defenses*, Tropical Field Entomology, Cornell University, NY.
- 2014 **Teaching Assistant**, Naturalist Outreach Practicum, Cornell University, NY.
- 2013 **Teaching Assistant**, Insect Phylogeny and Evolution, Cornell University, NY.
- 2013 **Guest Lecturer**, *Phylogeny and Insect-Plant Interactions*, Insect Phylogeny and Evolution, Cornell University, NY.
- 2011 **Teaching Assistant**, Plant Physiology, University of Toronto, ON.
- 2010 **Teaching Assistant**, Laboratory in Ecology and Evolutionary Biology, University of Toronto, ON.
- 2010 **Guest Lecturer**, *Animal Communication*, Laboratory in Ecology and Evolutionary Biology, University of Toronto, ON.
- 2009 **Teaching Assistant**, Laboratory in Ecology and Evolutionary Biology, University of Toronto, ON.

WORKSHOP PRESENTATIONS

- 2018-20 **Brochu, K.** *Introduction to R for Statistical Research* (3 sessions). Workshop Presentation. Lopez-Uribe Lab Group Meeting, Pennsylvania State University, PA.
- 2016 **Brochu, K.** *Teaching as Research*. Workshop Presentation. Snodwigg Undergraduate Entomology Club. Cornell University, NY.
- 2016 **Brochu, K.**; and Fairbairn, F. *Enhancing Your Teaching with Research-Based Principles*. Workshop presentation. Spring University-Wide Teaching Conference, GET SET Workshop Series, Innovative Approaches in Pedagogy Certificate, Center for Teaching Excellence (CTE), Cornell University, NY.
- 2016 **Brochu, K.**; and Zhang, Z. *Enhance Your Teaching by Understanding Students' Learning Styles*. Workshop presentation. GET SET Workshop Series, Understanding Undergraduate Learners Certificate, Center for Teaching Excellence (CTE), Cornell University, NY.
- 2015 **Brochu, K.**; and Leraul B. *Creating a Learning-Centered Syllabus*. Workshop presentation. GET SET Workshop Series, Course Design Certificate, Center for Teaching Excellence (CTE), Cornell University, NY.
- 2004 **Brochu, K.**; and Lee, H. *Sustainable Water Use – Let your flag fly!* Workshop presentation. United Nations Environment Programme (UNEP) Tunza International Children's Conference on the Environment. New London, CT.

CONFERENCE & SYMPOSIUM PRESENTATIONS

- 2019 **Brochu, K.** *Toxic Rewards: Assessing how pollen defenses can shape plant-pollinator interactions*. Invited Oral Presentation. Penn State University Department of Entomology Seminar Series. University Park, PA.
- 2019 **Brochu, K.**; and López-Uribe, M. Bee Foraging Patterns on Domesticated Crops and their Wild Relatives. Oral Presentation. 2019 Annual Meeting of the Entomological Society of America. St. Louis, MO.
- 2019 **Brochu, K.** *The Influence of Chemistry on Pollinator Foraging Behaviour in Cucurbit Systems*. Invited Oral Presentation. 2019 Eastern Branch Meeting of the Entomological Society of America. Blacksburg, VA.

- 2018 **Brochu, K.**; and Danforth B.N. *Love it or leave it: Digestive adaptations of specialist and generalist bees on cucurbits*. Oral Presentation. 2018 Joint Annual Meeting of the Entomological Society of America and the Entomological Society of Canada. Vancouver, BC.
- 2018 **Brochu, K.**; and De Luca, P.D. *A comparison of insect diversity between Grand Bahama, Eleuthera and San Salvador Islands*. Oral Presentation. Rand Nature Centre. Freeport, Grand Bahama, The Bahamas.
- 2018 **Brochu, K.**; van Dyke, M.; Kessler, A.; and Danforth, B.N. *Chemical Ecology of Bee Foraging Choices*. Oral Presentation. 2018 Center for Pollinator Research Symposium. Penn State University Park, PA.
- 2017 **Brochu, K.**; and Danforth, B.N. *Microbial Communities in Ground-Nesting Bee Brood Cells: Diverse, Stable, and Unique*. Oral Presentation. 2017 Annual Meeting of the Entomological Society of America. Denver, CO.
- 2017 **Brochu, K.**; and Williams, K. *Fear and Loathing in the Classroom: How Student Attitudes About Insects Affect Learning*. Poster Presentation. 2017 Annual Meeting of the Entomological Society of America. Denver, CO.
- 2017 **Brochu, K.**; van Dyke, M.; Milano, N.; McArt, S.; Petersen, J.; Nault, B.; Kessler, A.; and Danforth, B.N. *Effects of Pollen Defenses on a Generalist Pollinator*. Oral Presentation. Symposium on the Physiology and Toxicology of Insect Pollinators. Cornell University, NY.
- 2017 **Brochu, K.**; and Williams, K. *Fear and Loathing in the Classroom: How Student Attitudes About Insects Affect Learning*. Poster Presentation. First Annual Teaching as Research National Conference, Center for Teaching Excellence (CTE) and the Cornell University Center for the Integration of Research, Teaching, and Learning (CU-CIRTL), Cornell University, NY.
- 2017 **Brochu, K.**; and Danforth, B.N. *Microbial Ecology of the Squash Bee Brood Cell*. Oral Presentation. 6th Annual Entomology Department Symposium. Cornell University, NY.
- 2016 **Brochu, K.**; and Danforth, B.N. *Microbial Ecology of the Bee Brood Cell*. Oral Presentation. 2016 International Congress of Entomology. Orlando, FL.
- 2016 **Brochu, K.**, and Williams, K. *Fear and Loathing in the Classroom: The Effects of Student Attitudes on Learning*. Poster Presentation. 2016 Classroom Research and Teaching Symposium, Center for Teaching Excellence (CTE) and the Center for the Integration of Research, Teaching, and Learning (CU-CIRTL), Cornell University, NY.
- 2015 **Brochu, K.**; Kessler, A.; and Danforth B.N. *Chemical and microbial ecology of the bee brood cell: insights from the hoary squash bee, Peponapis pruinosa (Eucerini, Apidae)*. Oral presentation. 2015 Annual Meeting of the Entomological Society of America. Minneapolis, MN.
- 2015 **Brochu, K.**; Kessler, A.; and Danforth B.N. *Chemical and microbial ecology of the bee brood cell: insights from the hoary squash bee, Peponapis pruinosa (Eucerini, Apidae)*. Oral presentation. 2015 Jugatae Seminar Series. Cornell University, Ithaca, NY.
- 2012 **Brochu, K.**; Crampton, W.G.R.; Maldonado-Ocampo, J.A.; and Lovejoy N.R. *The loss of an anti-predator adaptation in the electric knifefish genus Gymnotus (Gymnotidae, Teleostei)*. Poster presentation. Evolution 2012. Ottawa, ON.
- 2011 **Brochu, K.**; Crampton, W.G.R.; Maldonado-Ocampo, J.A.; and Lovejoy N.R. *Molecular phylogenetics of the Neotropical electric knifefish genus Gymnotus (Gymnotidae, Teleostei): Biogeography and signal evolution of the trans-Andean*

- species*. Oral presentation. 2011 Joint Meeting of the Ichthyologists and Herpetologists (JMIH). Minneapolis, MN.
- 2011 **Brochu, K.**; Crampton, W.G.R.; Maldonado-Ocampo, J.A.; and Lovejoy N.R. *Testing the Predator-Avoidance Hypothesis: A molecular phylogenetic approach to the study of electric signals in Gymnotus (Gymnotidae, Teleostei)*. Oral presentation. Evolution 2011. Norman, OK.
- 2011 **Brochu, K.**; Crampton, W.G.R.; Maldonado-Ocampo, J.A.; and Lovejoy N.R. *Molecular phylogenetics of the Neotropical electric knifefish genus Gymnotus (Gymnotidae, Teleostei): Biogeography and signal evolution of the trans-Andean species*. Oral presentation. Ontario Ecology, Ethology, and Evolution Colloquium (OE3C). Toronto, ON.
- 2010 **Brochu, K.**; Crampton, W.G.R.; and Lovejoy N.R. *Testing the Predator-Avoidance Hypothesis: Evolution of EOD phase number in Gymnotus (Gymnotidae, Teleostei)*. Poster presentation. 2010 Joint Meeting of the Ichthyologists and Herpetologists (JMIH). Providence, RI.
- 2008 **Brochu, K.**; and Wheeler, T.A. *Systematics and ecology of the Nearctic species of Neophyllomyza (Diptera, Milichiidae)*. Poster presentation. Entomological Society of Canada Annual Meeting. Ottawa, ON.
- 2007 **Brochu, K.** *Systematics and ecology of the Nearctic species of Neophyllomyza (Diptera, Milichiidae)*. Oral presentation. Natural Sciences and Engineering Research Council of Canada (NSERC) Undergraduate Student Research Award (USRA) Seminar, McGill University. Montreal, QC.

RESEARCH SUPPORT

- 2017 \$500. Rawlins Award, Department of Entomology, Cornell University, NY.
- 2016 \$4,000. Griswold Award, Department of Entomology, Cornell University, NY.
- 2016 \$2,000. Rawlins Award, Department of Entomology, Cornell University, NY.
- 2016 \$400. College of Agriculture and Life Sciences (CALs) Alumni Association Award, Cornell University, NY.
- 2015-18 \$90,000. Hatch Grant Project No. NYC-139426, in collaboration with BN Danforth, Cornell University Agricultural Experiment Station Federal Capacity Funds, Cornell University, NY.
- 2015 \$637. Rawlins Award, Department of Entomology, Cornell University, NY.
- 2015 \$260. College of Agriculture and Life Sciences (CALs) Alumni Association Award, Cornell University, NY.
- 2015 \$2,000. Griswold Award, Department of Entomology, Cornell University, NY.
- 2015 \$1,000. Graduate Research Travel Award, Graduate School, Cornell University, NY.
- 2011 \$520. School of Graduate Studies Conference Grant, University of Toronto, ON.
- 2010 \$800. Grant in Aid of Research (GIAR), Sigma Xi, University of Toronto, ON.
- 2010 \$6,000. Michael Smith Foreign Study Supplement, Natural Sciences and Engineering Research Council of Canada (NSERC), University of Toronto, ON.

HONORS AND AWARDS

- 2017-18 \$57,000. Paul J. Chapman Graduate Student Fellowship, Department of Entomology, Cornell University, NY.
- 2017 \$75. 1st place Winner, Graduate Student Oral Competition: General Ecology II,

- Plant-Insect Ecosystems Section, 2017 Annual Meeting of the Entomological Society of America. Denver, CO.
- 2017 Finalist, Cornell 3-Minute Thesis Competition, Cornell University, NY.
- 2016-17 \$32,978. SAGE Fellowship, Department of Entomology, Cornell University, NY.
- 2016 2nd place Winner, Graduate Student Oral Competition: Ecology and Population Dynamics: Ecology and Evolution, 2016 International Congress of Entomology. Orlando, FL.
- 2015-16 \$1,000. Graduate Research and Teaching Fellow. Center for Teaching Excellence (CTE), Cornell University, NY.
- 2014 \$100. Outstanding Graduate Teaching Assistant, Department of Entomology, Cornell University, NY.
- 2012-15 \$63,000. Post-Graduate Scholarship (PGS D), Natural Sciences and Engineering Research Council of Canada (NSERC), Cornell University, NY.
- 2012-13 \$32,978. Presidential Life Sciences Fellowship (PLSF), Cornell University, NY.
- 2011 \$1,000. Graduate Student Research Award (GSRA), University of Toronto, ON.
- 2011 \$200. Best Student Paper – Oral Presentation, Neotropical Ichthyological Association (NIA), 2011 Joint Meeting of Ichthyologists and Herpetologists, Minneapolis, MN.
- 2010-11 \$15,000. Bourse de maîtrise en recherche (B1), Fonds québécois de recherche sur la nature et les technologies (FQRNT), University of Toronto, ON.
- 2009-10 \$17,500. Alexander Graham Bell Canada Graduate Scholarship (CGS M), Natural Sciences and Engineering Research Council of Canada (NSERC), University of Toronto, ON.
- 2009 \$4,035. Helen Sawyer Hogg Graduate Admission Award, Department of Ecology and Evolutionary Biology, University of Toronto, ON.
- 2008 \$5,625. Undergraduate Student Research Award (USRA), Natural Sciences and Engineering Research Council of Canada (NSERC), McGill University, QC
- 2007 \$5,625. Undergraduate Student Research Award (USRA), Natural Sciences and Engineering Research Council of Canada (NSERC), McGill University, QC.
- 2006 \$3,000. Macdonald Class of '51 Scholarship, Faculty of Agricultural and Environmental Sciences, McGill University, QC.
- 2006 \$5,625. Undergraduate Student Research Award (USRA), Natural Sciences and Engineering Research Council of Canada (NSERC), McGill University, QC.

COMMITTEE SERVICE

- 2018-20 **Diversity and Inclusion Committee Member**, Department of Entomology, Pennsylvania State University, PA.
- 2016-18 **Professional Development Committee Member**, Jugatae, Department of Entomology Graduate Student Society, Cornell University, NY.
- 2016-17 **Organizing Committee**, ComSciCon Cornell 2017, Cornell University, NY.
- 2015-16 **President**, Jugatae, Department of Entomology Graduate Student Society, Cornell University, NY.
- 2014-15 **Vice-President**, Jugatae, Department of Entomology Graduate Student Society, Cornell University, NY.
- 2014-15 **Professional Development Committee Chair**, Jugatae, Department of Entomology Graduate Student Society, Cornell University, NY.
- 2013-14 **Secretary**, Jugatae, Department of Entomology Graduate Student Society, Cornell University, Ithaca, NY.

- 2011 **Moderator**, Ontario Ecology, Ethology, and Evolution Colloquium (OE3C), University of Toronto, ON.
- 2011 **Advertising Committee**, Ontario Ecology, Ethology, and Evolution Colloquium (OE3C), University of Toronto, ON.

OUTREACH

- 2019 **Presenter**, *Fair-weather Frenemies: the complex relationship between bees and plants*, Science Café, Webster's Café & The Office of Postdoctoral Affairs, Pennsylvania State University, PA.
- 2018 **Presenter**, Great Insect Fair, Pennsylvania State University, PA.
- 2018 **"Levy Preserve Night Walk"**, Leon Levy Native Plant Preserve, Eleuthera, The Bahamas.
- 2017 **Presenter**, Empire Farm Days, Cornell Cooperative Extension, NY.
- 2013-17 **"Wild World of Insects" Presenter**, Naturalist Outreach Program (Multiple Venues), Cornell University, NY.
- 2012-17 **Presenter**, Insectapalooza, Cornell University, NY.
- 2013-16 **"BugZoo" Coordinator**, Expanding Your Horizons, Cornell University, NY.
- 2014-15 **"Pollination Walk" Presenter**, 4H Career Explorations, Cornell University, NY.
- 2013-14 **Presenter**, Cornell Entomology, New York State Fair, Syracuse, NY.
- 2010-11 **"Let's Talk Science" Presenter**, University of Toronto, ON.
- 2007-08 **Tour Guide**, Lyman Entomological Museum (LEM), McGill University, QC.

POPULAR PRESS

- 2020 The Bee Report Podcast. "Kristen Brochu: The noxious relationship between pumpkin pollen and bumble bees" 10.iv.2020
< <http://thebeereport.buzzsprout.com/819424/3308140-kristen-brochu-the-noxious-relationship-between-pumpkin-pollen-and-bumble-bees> >
- 2020 Cornell Chronicle. "Bumblebees hate pumpkin pollen, which may help pumpkins" 9.iii.2020 < <https://news.cornell.edu/stories/2020/03/bumblebees-hate-pumpkin-pollen-which-may-help-pumpkins> >
- 2015 periodiCALS, Vol 5 Issue 3: "Understanding What's Underfoot"
< <http://fall2015.periodicals.cals.cornell.edu/features/understanding-whats-underfoot> >
- 2014 Entomology Today. "If You're Trying to Find Insects in the Forest, Look Up" 8.ii.2014 < <http://entomologytoday.org/2014/02/08/if-youre-trying-to-find-insects-in-the-forest-look-up/> >
- 2014 Lyman Entomological Museum Blog. "Look up, way up: beetles and flies in the tree tops" 2.ii.2014 < <http://lymanmuseum.wordpress.com/2014/02/02/look-up-way-up-beetles-and-flies-in-the-tree-tops/> >
- 2011 Lyman Entomological Museum Blog. "New species under our noses" 6.iv.2011
< <http://lymanmuseum.wordpress.com/2011/04/06/new-species-under-our-noses/> >

PROFESSIONAL DEVELOPMENT

- 2020 *OL 2050: Essentials of Online Teaching for Graduate Students*, Penn State University, PA.
- 2019 *Analyzing UCE Phylogenomic Data*, Cornell University, NY.

- 2019 *Story Circles* (10 sessions), Narrative Training by Randy Olson.
- 2019 *Introduction to Python and Jupiter*, Penn State University, PA.
- 2018 *Geospatial Analysis*, Penn State University, PA.
- 2018 *Geospatial Exploration*, Penn State University, PA.
- 2018 *Dialictus Bee Identification Workshop*, Cornell University, NY.
- 2018 *Equity in STEM for All Genders*, Center for the Integration of Research, Teaching, and Learning (CIRTL) Online Course.
- 2018 *Finding Your Research Voice*, BEST Program Workshop, Cornell University, NY.
- 2017 *Creating an Engaging Classroom Certificate*, GET SET Workshop Series, Center for Teaching Excellence (CTE), Cornell University, NY.
- 2017 *EARS Advanced Training Certificate*, Empathy, Assistance, & Referral Service (EARS) Counsellor Training Program, Cornell University, NY
- 2016 *EARS Beginning Training Certificate*, Empathy, Assistance, & Referral Service (EARS) Counsellor Training Program, Cornell University, NY.
- 2016 *ComSciCon Cornell 2016*, Science Communication Conference, Cornell University, NY.
- 2016 *Building Mentoring Skills for an Academic Career Certificate*, Research Mentoring Certificate Program, Center for the Integration of Research, Teaching, and Learning (CU-CIRTL), Cornell University, NY.
- 2016 *Inclusive Teaching Institute*, Center for Teaching Excellence (CTE) and the Center for the Integration of Research, Teaching, and Learning (CU-CIRTL), Cornell University, NY.
- 2016 *Teaching Research Skills Certificate*, GET SET Workshop Series, Center for Teaching Excellence (CTE), Cornell University, NY.
- 2016 *Assessing Learning and Teaching Certificate*, GET SET Workshop Series, Center for Teaching Excellence (CTE), Cornell University, NY.
- 2016 *Developing a Professional Identity in Teaching Certificate*, GET SET Workshop Series, Center for Teaching Excellence (CTE), Cornell University, NY.
- 2015 *Understanding Undergraduate Learners Certificate*, GET SET Workshop Series, Center for Teaching Excellence (CTE), Cornell University, NY.
- 2015 *Course Design Certificate*, GET SET Workshop Series, Center for Teaching Excellence (CTE), Cornell University, NY.
- 2015 *Innovative Approaches to Pedagogy Certificate*, GET SET Workshop Series, Center for Teaching Excellence (CTE), Cornell University, NY.
- 2015 *Enhancing Teaching with Technology Certificate*, GET SET Workshop Series, Center for Teaching Excellence (CTE), Cornell University, NY.
- 2015 *Assessment Practices for the STEM Classroom Certificate*, PREPARE Workshop Series, Center for Teaching Excellence (CTE) and the Center for the Integration of Research, Teaching, and Learning (CU-CIRTL), Cornell University, NY.
- 2015 *Spring GET SET University-Wide Teaching Conference*, Center for Teaching Excellence (CTE), Cornell University, NY.
- 2015 *Gene Function Annotation Workshop*, BioHPC Lab, Cornell University, NY.
- 2014 *Perl for Biologists Workshop*, BioHPC Lab, Cornell University, NY.
- 2014 *RNA-Seq Data Analysis Workshop*, BioHPC Lab, Cornell University, NY.
- 2012 *The Bee Course*, Southwest Research Station, Portal, AZ.
- 2010 *GIS Workshop*, Saint-Louis University, St. Louis, MO.

PROFESSIONAL SOCIETY MEMBERSHIP

2018- Entomological Society of Canada

2015- Entomological Society of America
2011-16 Society of Systematic Biology
2010-12 American Society of Ichthyologists and Herpetologists