

Carly D. Ziter

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EDUCATION

- 2014-2018 **PhD** University of Wisconsin-Madison, Department of Integrative Biology
Dissertation: Ecosystem service supply in an urban landscape: roles of landscape structure, historical land-use, and biodiversity
Advisor: Dr. Monica Turner
- 2011-2013 **MSc** McGill University, Departments of Biology, Natural Resource Sciences
Thesis: The effects of forest fragmentation on aboveground carbon stocks and tree diversity: A case study of the Montérégie, QC.
Advisors: Dr. Andrew Gonzalez and Dr. Elena Bennett
- 2007-2011 **BSc** University of Guelph, Environmental Biology (minor Statistics)
Honours Thesis: Consumer and resource driven impacts on root dynamics and carbon sequestration in a degraded grassland.
Advisor: Dr. Andrew MacDougall

EMPLOYMENT AND ACADEMIC HISTORY

- Mar. 2019 – Fellow, Science College, Concordia University
- Dec. 2018 – Assistant Professor, Concordia University, Biology Department
- 2014 Ecosystem Service Analyst, Environment and Climate Change Canada, Science and Technology Branch, Ottawa ON
- 2013 Research Technician, McGill University, Montreal QC

RESEARCH INTERESTS

Landscape ecology; ecosystem services; biodiversity science; urban ecology; multifunctional landscapes; forest ecology; land-use legacies; sustainability

AWARDS AND HONOURS

- 2018 PhD Diversity and Excellence in Doctoral Research Award, Canadian Society for Ecology and Evolution (national, \$500 CAD)
- 2017 PEO Ventura Neale Trust Endowed Scholar Award. Competitive fellowship for women doctoral/medical students. Selected among 800 nominees as one of 11 Endowed Scholars (international: Canada/USA, \$15,000 USD)
- 2017 Best Student Presentation, IALE-NA (\$150 USD)

- 2017 Best Student Presentation, Wisconsin Ecology (\$500 USD)
- 2016 Garden Club of America Urban Forestry Fellowship (national US, \$5000 USD)
- 2015 Phi Kappa Phi National Honor Society (national)
- 2014 DIVERSITAS Youth Reporter (international)
- 2013 McGill International Research Award (\$2000 CAD)
- 2013 Honourable Mention Union of Concerned Scientists Ecoservice Award
- 2012 Quebec Center for Biodiversity Science Excellence Award (\$2195 CAD)
- 2011 Environmental Sciences Academic Prize, University of Guelph (\$1000 CAD)
- 2011 Beth Duncan Gold Medal for extracurricular activity, University of Guelph
- 2011 Best Student Talk, Ontario Biology Day (\$200 CAD)
- 2010 Best Integrative Biology Thesis Proposal, University of Guelph (\$300 CAD)

PEER REVIEWED PUBLICATIONS ([Google Scholar](#): >250 citations, H-Index 9)

Articles in Review/Revision

Shannon T, Ahler S, Mathers M, **Ziter C**, Dugan H. Road salt impact on soil electrical conductivity across an urban landscape (*In Review*)

McDonald R et al. (including **Ziter C**). The growing impacts of cities on biodiversity: Research gaps limit global decision-making (*In Revision*)

Published/In Press

13. **Ziter C**, Pedersen EJ, Kucharik CJ, Turner MG. 2019. Scale-dependent interactions between tree canopy cover and impervious surfaces reduce daytime urban heat during summer. *PNAS* (*In Press*)
12. Dyson K, **Ziter C**, Patterson MS, Fuentes TL. 2019. Conducting urban ecology research on private property: advice for new urban ecologists. *Journal of Urban Ecology* (*In Press*)
*** Peer J Preprint was a "Top 5 Most Viewed Article" in its subject area in 2018**
11. **Ziter C**, Turner MG. 2018. No evidence of co-facilitation between a non-native Asian earthworm (*Amyntas tokioensis*) and invasive common buckthorn (*Rhamnus cathartica*) in experimental mesocosms. *Biological Invasions* 21: 111-122
10. **Ziter C**, Turner MG. 2018. Current and historical land use influence soil-based ecosystem services in an urban landscape. *Ecological Applications* 28: 643-654
9. **Ziter C**, Graves RA, Turner MG. 2017. How do land-use legacies affect ecosystem services in United States cultural landscapes? *Landscape Ecology* 32: 2205-2218
8. Rose KC, Graves RA, Hansen WD, Harvey BJ, Qiu J, Wood SA, **Ziter C**, Turner MG. 2017. Historical foundations and future directions in macrosystems ecology. *Ecology Letters* 20: 147-157
7. **Ziter C** 2016. The biodiversity-ecosystem service relationship in urban areas: A quantitative review. *Oikos* 125: 761-768

*** Editor's Choice, June 2016**

6. Mitchell MGE, Bennett EM, Gonzalez A, Lechowicz M, Rhemtulla J, Cardille J, Vanderheyden K, Poirier-Ghys G, Renard D, Delmotte S, Albert C, Rayfield B, Dumitru M, Huang HH, Larouche M, Liss K, Maguire D, Martins K, Terrado M, **Ziter C**, Taliana L, Dancose K. 2015. Montérégie Connection: linking landscapes, biodiversity, and ecosystem services to improve decision making. *Ecology & Society* 20(4):15
5. **Ziter C**, Bennett E, Gonzalez A. 2014. Temperate forest fragments maintain aboveground carbon stocks out to the forest edge despite changes in community composition. *Oecologia* 176: 893-902
4. **Ziter C**, Bennett E, Gonzalez A. 2013. Functional diversity and management mediate aboveground carbon stocks in small forest fragments. *Ecosphere* 4: art85.
3. Liss K, Mitchell MGE, MacDonald GK, Mahajan S, Méthot J, Jacob AL, Maguire D, Metson G, **Ziter C**, Dancose K, Martins K, Terrado Casanovas M, Bennett EM. 2013. Variability in ecosystem service measurement: a case study of pollination service studies. *Frontiers in Ecology and the Environment* 11:414-422
2. **Ziter C**, MacDougall AS. 2013. Nutrients and defoliation increase soil carbon inputs in grassland. *Ecology* 94:106-116.
1. **Ziter C**, Robinson EA, Newman JA. 2012. Climate change and voltinism in California insect pest species: sensitivity to location, scenario and climate model choice. *Global Change Biology* 18:2771-2780.

OTHER PUBLICATIONS

Non-peer reviewed articles

Ziter C, Mitchell M, Bardekjian A, Conway T, Danyluk A, Molnar M, Pachcinski M, Podur J, Schaefer V, Clark J, Murphy S. 2018. Connect Urban Planners and Urban Ecologists to Create Sustainable Canadian Cities. *The Nature of Cities*.

Book Chapters

Bennett EM, Albert C, Ball A, Cardille J, Dancose K, Delmotte S, Gonzalez A, Hsin HH, Lechowicz M, Liss K, Kipp R, Maguire D, Mahajan S, Mitchell M, Teixeira-Martins K, Raudsepp-Hearne C, Renard D, Rhemtulla J, Taliana L, Terrado M, Ziter C. 2019. The Montérégie Connection: Understanding How Ecosystems Can Provide Resilience to the Risk of Ecosystem Service Change. In: Schröter M., Bonn A., Klotz S., Seppelt R., Baessler C. (eds) *Atlas of Ecosystem Services*. Springer, Cham

Reports

McDonald R, Colbert M, Hamann M, Simkin R, Walsh B. (*Coordinating Lead Authors*), Ascensão F, Barton M, Crossman K, Edgecomb M, Elmqvist T, Gonzalez A, Guralp B, Haase D, Hillel O, Huang K, Maddox D, Mansur A, Paque J, Pereira H, Pierce J, Weller R, Seto K, Tan M, **Ziter C** (*Lead Authors*). 2018. *Nature in the Urban Century: A global assessment of important areas for safeguarding biodiversity and human*

well-being. Future Earth, The Nature Conservancy.

Doyle, M., Malouin, C., Liss, K., Ziter C 2014. Toward an Ecosystem Potential Index for Canada (EPIC): A Boreal Case Study. Environment Canada.

GRANTS AND SCHOLARSHIPS (*Post Undergraduate Only*)

Research Grants

- 2019-2024 NSERC Discovery Grant “Biodiversity-Ecosystem Service Relationships in Spatially Heterogeneous, Dynamic Urban Landscapes” (\$28,000/year x 5 years, plus \$12,500 Discovery Launch Supplement)
- 2016-2017 National Geographic Early Career Grant, “Impacts of multiple invasive species on ecosystem service provision in an urbanizing agricultural watershed” (\$4116 USD)
- 2014-2015 “Linking Action and Research on Sustainability.” (C. Ziter, E. Bennett, C. Potvin), McGill Sustainable Projects Fund (\$39,580 CAD)
- 2014 Canadian Society for Ecology and Evolution Symposium Award (\$1000 CAD)
- 2013-2014 “Montréal à Votre Service...Écologique.” (M. Mitchell and E. Bennett, leads, 11 team members incl. C. Ziter), McGill Sustainable Projects Fund (\$30,130 CAD)

Scholarships and Travel Grants

- 2016-18 Travel Awards (x4), UW-Madison Integrative Biology Dept (\$2850 USD)
- 2017 Travel Award Canadian Society for Ecology and Evolution (\$500 CAD)
- 2017 Travel Award US-International Association of Landscape Ecology (\$500 USD)
- 2017 Phi Kappa Phi Honour Society Love of Learning Award (\$500 USD)
- 2014-2017 NSERC Canada Graduate Scholarship – PhD (\$105,000 CAD)
** declined to attend US institution, accepted NSERC PGS-D (\$63,000 CAD)*
- 2015 Incoming Graduate Research Fellowship, UW-Madison (\$20,000 USD)
- 2011-2012 NSERC Canada Graduate Scholarship – MSc (\$17,500 CAD)
- 2011 Graduate Excellence Fellowship, McGill University (\$4228 CAD)
- 2011 Graduate Admission Award, McGill Biology Department (\$2500 CAD)
- 2007-2011 Board of Governors Scholarship, University of Guelph (\$8000 CAD)
- 2009, 10 OAC Dean’s Scholarship, University of Guelph (\$2000 CAD)
- 2010 Arthur Latornell Travel Award, University of Guelph (\$1000 CAD)
- 2010 OAC’54 International Study Award, University of Guelph (\$1450 CAD)
- 2009 NSERC Undergraduate Student Research Award (\$4500 CAD)
- 2007 University of Guelph Entrance Scholarship (\$3000 CAD)

SYMPOSIA AND WORKING GROUPS

- 2019 Symposium Co-Organizer, “Integrating urban ecology across scales and trophic levels”, Canadian Society for Ecology and Evolution, Fredericton, NB
- 2018 Working Group Participant, sUrBio2050 “Assessing globally important areas for biodiversity preservation and human well-being”, sDiv, Germany
- 2017 Symposium Co-Organizer, “Accelerating urban ecology in Canada: Identifying

- current research approaches, gaps, and needs in Canadian cities”, Canadian Society for Ecology and Evolution, Victoria, BC
- 2014 Symposium Co-Organizer, “Science Communication: hands-on skill building workshops in blogging and radio/podcasting”, Canadian Society for Ecology and Evolution, Montreal, QC

INVITED TALKS

Invited Plenaries

- 2019 Sustainability Across Disciplines Conference, Concordia University, Montreal, QC
- 2019 Panelist, Beyond Disciplines: Cities, Concordia University, Montreal QC

Invited Seminars

- 2018 Departmental Seminar, Concordia University, Montreal QC
- 2018 Biology Colloquium Seminar, University of Wisconsin-Madison, Madison WI
- 2018 Center for Limnology Seminar, University of Wisconsin-Madison, Madison WI
- 2017 Departmental Seminar, Memorial University of Newfoundland, St John’s, NL

Invited Symposium Talks

- 2018 Diversity and Excellence in Doctoral Research Award, Canadian Society for Ecology and Evolution, Guelph, ON
- 2017 Symposium Speaker, US-International Association of Landscape Ecology, Baltimore MD **Best Student Presentation*

CONTRIBUTED TALKS *(presenting author only)*

- 2018 **Ziter C**, Pedersen EJ, Kucharik CJ, Turner MG. 2018. *QCBS*, Montreal, QC
- 2018 **Ziter C**, Pedersen EJ, Kucharik CJ, Turner MG. 2018. *NACCB*, Toronto ON
- 2018 **Ziter C**, Pedersen EJ, Kucharik CJ, Turner MG. 2018. *US-IALE*, Chicago IL
- 2018 **Ziter C**, Turner MG. *Wisconsin Ecology Symposium*, Madison WI (Poster)
- 2017 **Ziter C**, Turner MG. *CSEE*, Victoria, BC
- 2017 **Ziter C**, Turner MG. *Wisconsin Ecology Symposium*, Madison WI **Winner best talk*
- 2016 **Ziter C**, Turner MG. *ESA*, Fort Lauderdale FL
- 2016 **Ziter C**, Turner MG. *CSEE*, St John’s NL
- 2016 **Ziter C**, Turner MG. *Early Career Scientists Meeting – NTL LTER*, Madison WI
- 2015 **Ziter C**. *ComSciCon 2015: The National Science Communication Leadership Conference for Graduate Students*, Cambridge MA (Poster)
- 2013 **Ziter C**. *McGill Eco-Evo Seminar Series*, Montreal QC
- 2013 **Ziter C**, Bennett E, Gonzalez A. *QCBS*, Montreal QC
- 2013 **Ziter C**, Bennett E, Gonzalez A. *INTECOL*, London UK
- 2013 **Ziter C**, Bennett E, Gonzalez A. *ESA*, Minneapolis, MN
- 2012 **Ziter C**, Bennett E, Gonzalez A. *QCBS*, Montreal QC
- 2011 **Ziter C**, MacDougall AS. *Ontario Biology Day*, Waterloo ON **Winner best talk*

TEACHING

Undergraduate Teaching

2019 Ecology and Biodiversity (BIOL226), Concordia

Teaching Assistant

2014-2017 *UW-Madison*: Introductory Biology (x2); Biocore Ecology, Evolution, Genetics

2012-2013 *McGill*: Population and Community Ecology, St. Lawrence Ecosystems

Guest Lectures

2019 Data Driven Ecological Synthesis Intensive Course, U de M Biological Station

2018 Great Lakes, Rochester Institute of Technology.

2016 Biology and Philosophy of Human/Animal Relationships, UW-Madison

2014 Research in Sustainability, McGill University Department of Geography

2012 Population and Community Ecology, McGill University

MENTORING

Graduate Student Supervision

Incoming Fall 2019

2019 – Serena Mohamed (*Hydro Quebec Masters Scholarship*)

2019 – Emily Kroft (*Concordia Faculty of Arts and Sciences Scholarship*)

2019 – Kayleigh Hutt-Taylor (*Concordia Merit Scholarship*)

Undergraduate Student Supervision

2019 Kieu-Nhi Vu (*Concordia Undergraduate Student Research Award*)

2019 Serena Mohamed

Graduate Committees

2019 – Isaac Eckert, MSc Biology, Concordia (Dr. JP Lessard, Advisor)

2019 – Victor Renaud, MSc Biology, Concordia (Dr. JP Lessard, Advisor)

2018 – Anne-Sophie Caron, PhD Biology, Concordia (Dr. Emma Despland, advisor)

Additional Mentoring

2017-2018 Peer mentor, Zoology Introductions for New Students program, UW-Madison

2012-2017 Supervised 6 research assistants, McGill and UW-Madison

2013 Supervised 3 sustainability interns, McGill

PROFESSIONAL SERVICE

Selected University and Community Service

2019 – Internal MSc NSERC Committee, Faculty of Arts and Sciences, Concordia

- 2019 Judge, CSEE PhD Diversity and Excellence Award
- 2019 Judge, student presentations, Bold Science Conference, Concordia
- 2019 City Studio Planning Meeting, Concordia
- 2017-2019 Journal of Urban Ecology Editorial Board – Social Media Editor
- 2015-2019 International Network of Next Generation Ecologists Working Group
- 2016-2018 Leadership of data collection, processing, and management for a 150-sensor array to study urban heat island effects for the NTL-LTER
- 2015-2016 President, UW-Madison Zoology Graduate Student Organization
- 2015-2016 Grad student rep, Zoology Instructional Programs Committee, UW-Madison
- 2012-2013 Organismal Seminar Graduate Representative, McGill Department of Biology
- 2012-2013 Grad student rep, Conservation, Ecology, Evolution, Behavior Seminar, McGill
- 2012-2013 Councilor, McGill Biology Graduate Student Association
- 2012-2013 Organizing Committee, Conservation, Ecology, Evolution and Behavior Graduate Student Symposium, McGill

External Reviewer

- 2015 – Peer Reviewer: BioScience (3), Conservation Letters, Ecology and Society, Ecosphere, Frontiers in Ecology and the Environment, Journal of Applied Meteorology and Climatology, Journal of Plant Ecology, Landscape Ecology, Landscape and Urban Planning, Nature Communications, PLOS One (2), Regional Environmental Change, SOIL, Urban Ecosystems
- 2017 International Grant Reviewer: NRF Singapore CREATE

Professional Memberships

Canadian Society for Ecology and Evolution; Ecological Society of America; Quebec Center for Biodiversity Science; International Association for Landscape Ecology – North America

SCIENCE COMMUNICATION, EDUCATION, AND OUTREACH

- 2018 Invited Speaker, Meet the Author Event, Young Ecosystem Service Specialists
- 2018 Invited speaker, 18th Annual Science Day, UW-Madison Arboretum
- 2018 Public Lecture University Woods Oakwood Village
- 2017-2018 Invited speaker (x2), PEO International Chapters DH and AE
- 2017 Public lecture Dane County Community Gardens Coalition
- 2017 Public lecture Madison Christian Community
- 2017 Public lecture Madison Public Library
- 2017 Organized Madison’s “Citywide Jumping Worm Survey”, a citizen science census to quantify presence and abundance of an invasive species, sponsored by NTL-LTER, UW-Madison Integrative Biology, UW-Madison Arboretum
- 2017 Invited speaker, 17th Annual Science Day, UW-Madison Arboretum
- 2017 Guest Lecture, La Follette High School
- 2017 Workshop facilitator, Meeting our future water needs: A technical workshop for stakeholders by Water, Sustainability and Climate project, UW-Madison
- 2015-2017 Outreach volunteer, UW-Madison’s Science Expeditions (Annually, x3 years)
- 2014-2016 Outreach volunteer, Wisconsin Science Festival (Annually, x 3 years)

- 2016 Presentation to UW Arboretum staff on invasive earthworm research
- 2016 Invasive earthworm demonstration, U-Maine Field Natural History class
- 2016 Invasive earthworm demonstration, Forest Health workshop UW-Arboretum
- 2016 Outreach volunteer, "Teen Science Cafés"
- 2016 Panelist, "Strategies for securing student grants", ESA, Fort Lauderdale FL
- 2015-2016 Outreach volunteer, UW-Madison Darwin Day (Annually, x2 years)
- 2015 Guest Instructor, UW-Madison Preschool Laboratory
- 2015 Outreach volunteer, Dane County Farm Technology Days, Sun Prairie, WI.
- 2015 Invited Panellist, UW-Madison Undergraduate Zoological Society
- 2013-2014 Blogger, Jane Goodall Institute of Canada
- 2014 Workshop lead, "Social Media, Websites, and Technology in Science Communication". UW-Madison Graduate Student Informal Seminar Series
- 2014 Project Manager "Linking Action & Research on Sustainability". A bilingual science communication initiative through McGill's Office of Sustainability, focused on training and supporting scientists in publicizing their research
- 2013 Social Media Coordinator, Project Manager "Montreal's Ecosystems at your Service". A bilingual science communication initiative through McGill's Office of Sustainability, using storytelling to connect Montrealers with nature.
- 2013 Panelist, Canadian Science Writer Association Annual Meeting, Montreal, QC.
- 2011-2013 Presenter (x10), Let's Talk Science, McGill University.
- 2012 Invited speaker, Curieux de Nature Lecture Series, Mont Saint Hilaire

ADDITIONAL PROFESSIONAL EXPERIENCE AND TRAINING

- 2018 Participant, How to use your science to inform and influence policy for concrete conservation outcomes. Workshop from Evidence for Democracy
- 2017 Participant, Breaking the prejudice habit: Creating Inclusion and Overcoming Bias. Workshop led by Dr. Patricia Devine, Dr. William Cox, UW-Madison
- 2017 Participant, Diversity and Inclusivity Training, UW-Madison
- 2017 Participant, COMPASS Workshop: Communicating your Science, UW-Madison
- 2016 Invited Participant, National Geographic Storytelling Bootcamp, UW-Madison
- 2015 Participant, Data Carpentry Workshop, UW-Madison
- 2015 Invited participant, ComSciCon: National Science Communication Leadership Conference for Graduate Students. 50 selected students of 970 applicants
- 2014 DIVERSITAS Youth Reporter. One of four international students selected to report on the DIVERSITAS Meeting and transition to Future Earth, Spain

SELECTED MEDIA COVERAGE

- 2018 Trees make cities cool. THE SAINT CROIX COURIER by Brian Owens
- 2018 A secret superpower, right in your backyard. THE NEW YORK TIMES by Kendra Pierre-Lois ([link](#))
- 2018 Green spaces in cities help control floods, store carbon. UW-MADISON NEWS, by Adam Hinterthuer ([link](#)) *also covered in PREVENTIONWEB, NATURAL CAPITAL COALITION, VRT BELGIUM, TIMES COLONIST, elsewhere

- 2017 Citizen scientists scour Madison area for invasive jumping worms. UW-MADISON NEWS, by Eric Hamilton ([link](#))
- 2017 Science day spotlights research at the arboretum. ARBORETUM NEWS, by Brad Herrick ([link](#))
- 2016 Urban Ecosystem Services. Radio interview, EARTHSPEAK RADIO: WSUM ([link](#)) *also played on WORT COMMUNITY RADIO ([link](#))
- 2016 Weather Bikes Stand Out In Urban Studies, Advance Science Dialogue. ENVIRONMENTAL MONITOR, by Daniel Kelly ([link](#))
- 2016 Worming their way into Wisconsin. ISTHMUS, by Doug Hansmann, Denise Thornton ([link](#))
- 2016 What a bicycle can tell us about the urban heat island. YAHARA IN SITU, by Jenny Seifert ([link](#)); *also printed in UWMADSCIENCE ([link](#))
- 2016 When two invasive species meet. YAHARA IN SITU, by Jenny Seifert ([link](#))
- 2015 Green Plan. MCGILL REPORTER: HEADWAY, by Meaghan Thurston ([link - in English](#)) * also printed in MCGILL REPORTER: EN TETE ([link - in French](#))
- 2014 La biodiversité inestimable de la vallée du Richelieu. LAURIER, by Saïd Mahrady ([link](#))