## Dr. Brian Matthew Ohsowski

Position: Assistant Professor

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Updated: September 8, 2024

## Research Website:

www.ohsowski-ecology.com

## 1 Academic Interests

- Scientific education to inspire fact-based action and high-quality research
- Closed-loop ecological restoration of invaded Typha x glauca Great Lakes coastal wetlands
- Plant and soil responses to amendments (biochar / compost) in degraded landscapes
- Salinization and heavy metal mitigation in urban aquatic systems
- Implement advanced statistical methodology to inform ecological management
- Facilitate partnerships among stakeholders to emphasize ecosystem service importance

## 2 EDUCATION

#### University of British Columbia

Doctor of Philosophy in Biology

**Ph.D. Thesis:** Restoring grasslands in southern Ontario sandpits: Plant and soil food web responses to arbuscular mycorrhizal fungal inoculum, biochar, and municipal compost

#### Eastern Michigan University

Masters of Science in Ecology & Organismal Biology

M.S. Thesis: Annual secondary production of fungal and bacterial decomposers associated with standing and benthic litter of the emergent macrophyte, *Typha angustifolia* 

#### Eastern Michigan University

Bachelor of Science (Biology Major; Chemistry Minor)

Honors: Magna Cum Laude

Kelowna, BC, Canada Completed: May 2015

Ypsilanti, MI, U.S.A. Completed: Jul 2008

Ypsilanti, MI, U.S.A. Completed: Dec 2003

## 3 Publications

#### 3.1 Peer-Reviewed Journals

Note: Asterisks denotes student rank on publication: Undergraduate Student\*; Graduate Student\*\*

- [1] **Ohsowski, B.M.**, Michaels M.S.\*\*, Schurkamp, S., Aleladia, B.O.\*\*, Palmquist M.M.\*\*, Bednard, E.\*, Dzyacky, S.\*, Risdal, A.\*, Copps, C.\*, Wenner, M.\* and S.C. Lishawa. 2024. Surveying 10 years of biochar research in field and greenhouse studies: Strengths and opportunities for research reporting and practical management outcomes. *In-Prep Submission to Science of The Total Environment: October 1st, 2024*
- [2] **Ohsowski, B.M.**, Redding, C.\*, Geddes, P., and S.C. Lishawa. 2024. Field–based measurement tools to distinguish clonal *Typha* taxa and estimate biomass: a resource for conservation and restoration. *Frontiers in Plant Science* 15:1348144
- [3] Schurkamp, S.J.\*\*, Lishawa, S.C., and B.M. Ohsowski. 2024. Wetland plant species and biochar amendments lead to variable salinity reduction in roadway–associated soils. Science of The Total Environment 951:175801
- [4] Demastus, J.\*\*, **Ohsowski, B.M.**, and N.E. Landrum. 2024. Exploring the nexus of organisational culture and sustainability for green innovation. *Industry and Innovation* p. 1–31. doi.org/10.1080/13662716.2024.2390991
- [5] Monks, A.M., Lishawa, S.C., **Ohsowski, B.M.**, Schurkamp, S.J.\*, and B.A. Lawrence. 2023. Complementarity of road salt and heavy metal pollutant removal through invasive Typha and Phragmites harvest in urban wetland detention basins. *Ecological Engineering* 194:107058
- [6] Kilbane, E.\*\*, Crews, T., DeHaan, L., Grillo, M., Ohsowski, B., and Dybzinski, R. Modeling carbon allocation strategies for high-yielding perennial crops. *New Phytologist* Reject with an invitation to resubmit: April, 16, 2022 (In–Review August 2023).
- [7] van der Heyde, M.\*\*, Lui, H., **Ohsowski, B.**, and M. Hart. 2018. Arbuscular mycorrhizal community recovers rapidly along a tallgrass restoration chronosequence. *Ecological Restoration* 36(2):108–111
- [8] Landrum, N. and **B. Ohsowski**. 2018. Identifying worldviews on corporate sustainability: A content analysis of corporate sustainability reports. *Business Strategy and the Environment* 27(1):128–151
- [9] **Ohsowski, B.M.**, Dunfield, K.E., Klironomos, J.N., and M.M. Hart. 2018. Plant response to biochar, compost, and mycorrhizal fungal amendments in post–mine sandpits. *Restoration*

- [10] Landrum, N. and B.M. Ohsowski. 2017. Content trends in sustainable business education: An analysis of introductory courses in the U.S. International Journal of Sustainability in Higher Education 18(3):385–414
- [11] van der Heyde, M.\*\*, **Ohsowski, B.M.**, Abbot, L.K., and M.M. Hart. 2017. Arbuscular mycorrhizal fungal responses to disturbance are context-dependent. *Mycorrhiza* 27(5):431–440
- [12] Ohsowski, B.M., Dunfield, K.E., Klironomos, J.N., and M.M. Hart. 2016. Improving plant biomass estimation in the field using partial least squares regression and ridge regression. *Botany* 94(7):501–508
- [13] Landrum, N., Dybzinski, R., Smajlovic, A.\*, and **B.M. Ohsowski**. 2016. Managing for Resilience: Lessons from Ecology *Journal of Management for Global Sustainability* 3(1):75–99
- [14] **Ohsowski, B.M.**, Zaitsoff P.D.\*, Öpik, M., and M.M. Hart. 2014. Where the wild things are: looking for uncultured Glomeromycota *New Phytologist* 204(1):171–179
- [15] **Ohsowski, B.M.**, Klironomos, J.N., Dunfield, K.E., and M.M. Hart. 2012. The potential of soil amendments for restoring severely disturbed grasslands. *Applied Soil Ecology* 60:77–83
- [16] Hart, M.M., Forsythe, J.\*, **Oshowski, B.**, Bücking, H., Jansa, J., and T. Kiers. 2012. Hiding in a crowd–does diversity facilitate persistence of a low–quality fungal partner in the mycorrhizal symbiosis? *Symbiosis* 59:47–56
- [17] Kuehn, K.A., **Ohsowski, B.M.**, Francoeur, S.N., and R.K. Neely. 2011. Contributions of fungi to carbon flow and nutrient cycling from standing dead *Typha angustifolia* leaf litter in a temperate freshwater marsh. *Limnology and Oceanography* 56(2):529–53

#### 3.2 Technical Reports

- [1] Ohsowski, B.M., Hart, M.M., Dunfield, K.E., and J.N. Klironomos. 2013. Prairie restoration in post—extraction sandpits: Plant response to arbuscular mycorrhizal inoculum, biochar, and municipal compost. *Final Research Report*. 64pp. website: http://toarc.com/research/publications.html
- [2] **Ohsowski, B.M.**, Hart, M.M., Dunfield, K.E., and J.N. Klironomos. 2013. Re-vegetating post-mine sandpits: Plant response to AMF inoculum and carbon amendments. 2012 TOARC Annual Report. 16:9-15. website: http://toarc.com/research/annual-reports.html
- [3] Ohsowski, B.M., Hart, M.M., Dunfield, K.E., and J.N. Klironomos. 2012. Re-vegetating post-mine sandpits: Plant response to AMF inoculum and carbon amendments. 2011 TOARC

- [4] **Ohsowski, B.M.**, Hart, M.M., Dunfield, K.E., and J.N. Klironomos. 2011. Tallgrass prairie restoration within derelict sand and gravel pits in southern Ontario: An investigation of native prairie plant response to mycorrhizal inoculation and soil carbon amendments. 2010 TOARC Annual Report. 14:6–11. website: http://toarc.com/research/annual-reports.html
- [5] **Ohsowski, B.M.**, Hart, M.M., Dunfield, K.E., and J.N. Klironomos. 2010. Tallgrass prairie restoration within derelict sand and gravel pits in southern Ontario: An investigation of native prairie plant response to mycorrhizal inoculation and soil carbon amendments. 2009 TOARC Annual Report. 13:6–10. website: http://toarc.com/research/annual-reports.html

#### 3.3 DOCTORAL DISSERTATION

[1] **Ohsowski, B.M.** 2015. Restoring grasslands in southern Ontario sandpits: plant and soil food web responses to arbuscular mycorrhizal fungal inoculum, biochar, and municipal compost. *UBC* website: https://circle.ubc.ca/handle/2429/53097

## 3.4 M.Sc. Thesis

[1] **Ohsowski, B.M.** 2008. Annual secondary production of fungal and bacterial decomposers associated with standing and benthic litter of the freshwater emergent macrophyte, *Typha angustifolia*. *Eastern Michigan University* website: http://commons.emich.edu/theses/200/

#### 3.5 Magazines

[1] **Ohsowski, B.M.** 2012. Re-vegetating post-extraction sand and gravel pits: Using fungi and soil amendments to increase plant survivorship and growth. Organization: Ontario Stone, Sand & Gravel Association. *Avenues Magazine* 2(1): 35–37

## 4 Teaching and Research Recognition

Langerbeck Award for Undergraduate	LUC
Research Mentorship (Winner)	$Chicago,\ IL$
Award Amount: \$2,000 (SP 2023)	
Alice Bourke Hayes Award (1st Runner-Up)	LUC
Award Amount: NA (SP 2022)	$Chicago,\ IL$
Alice Bourke Hayes Award (2nd Runner-Up)	LUC
Award Amount: NA (SP 2021)	$Chicago,\ IL$
St. Ignatius of Loyola Excellence	LUC
in Teaching Award (Nominations)	$Chicago,\ IL$

Award Amount: NA (SP 2018 / SP 2019 / SP 2021 / SP

2022)

Faculty Member of the Year Finalist

LUC

Student Government of Loyola Chicago and

Chicago, IL

Maroon & Gold Society (SP 2018)

Top 20 Most Downloaded Paper in Journal

Bus. Strateg. Environ.

(JULY 2016 – JUNE 2018)

Award Amount: NA (SU 2018)

Emerald Literati Award for Outstanding Paper

Int. J. Sustain.

Award Amount: NA (SU 2018)

Higher Ed.

Alice Bourke Hayes Award (Nomination)

Chicago, IL

LUC

Award Amount: NA (SP 2017 / SP 2022)

Can. Land Reclamation Assoc.

Student Oral Presentation Award Award Amount: \$250 (FA 2012)

Sydney, NS

Teaching Excellence Award

UBC

Award Amount: \$500 (SP 2012)

Kelowna, BC

Teaching Excellence Award (Nomination)

UBC

Award Amount: NA (SP 2011)

Kelowna, BC

Outstanding Classroom Lecturer (Nomination)

EMU

Award Amount: NA (SP 2008)

Ypsilanti, MI

Ronald W. Collins Research Excellence Medal

EMU

Award Amount: \$250 (SU 2006)

Ypsilanti, MI

Meta Hellwig Graduate Research Award

EMU

Award Amount: \$\$4,000 (SU 2006)

Ypsilanti, MI

## 5 Scholastic and Mentorship Recognition

Fall Professional Development Funds

SES

North American Society for

Vancouver, British Columbia

Restoration Ecology Conference

Award Amount: \$1,500 (FA 2024)

Summer 2020 IES Travel Funding

IES

Society for Restoration Ecology Conference

Quebec City, Quebec

Award Amount: \$1,780 (SP 2020)

Professional Development & Travel Funding Course (Puerto Maldonado, Peru) Award Amount: \$2,500 (SP 2019)	$\begin{array}{c} {\rm IES} \\ {\it Chicago, \ IL} \end{array}$
Professional Development & Travel Funding Conference (San Antonio, TX) Award Amount: \$1,000 (FA 2017)	IES Chicago, IL
McNair Scholars Program Faculty Mentorship Award Amount: \$2,500 (FA 2016)	$\begin{array}{c} \text{LUC} \\ \textit{Chicago, IL} \end{array}$
Professional Development & Travel Funding Conference (Montpellier, France) Award Amount: \$1,000 (SU 2015)	IES Chicago, IL
SER Travel Stipend Award Amount: \$1,275 (FA 2013)	Soc. Ecol. Rest. $Madison, WI$
UBC Graduate Student Travel Grant Award Amount: \$1,000 (FA 2013)	$\begin{array}{c} \text{UBC} \\ \textit{Kelowna}, \ \textit{BC} \end{array}$
University Graduate Fellowship Award Award Amount: \$6,000 (FA 2013)	$\begin{array}{c} \text{UBC} \\ \textit{Kelowna}, \ \textit{BC} \end{array}$
CSEE Conference Honorarium Award Amount: \$1,000 (SP 2013)	Can. Soc. Ecol. Evol. $Kelowna, BC$
Special UBC Okanagan Award Award Amount: \$1,500 (SP 2013)	$\begin{array}{c} \text{UBC} \\ \textit{Kelowna}, \ \textit{BC} \end{array}$
Ph.D. Tuition Award Award Amount: \$4,017/yr (FA 2009–FA 2013)	$\begin{array}{c} \text{UBC} \\ \textit{Kelowna}, \ \textit{BC} \end{array}$
International Partial Tuition Scholarship Award Amount: \$3,182/yr (FA 2009–FA 2013)	$\begin{array}{c} \text{UBC} \\ \textit{Kelowna}, \ \textit{BC} \end{array}$
University Graduate Fellowship Award Award Amount: \$6,000 (FA 2012)	$\begin{array}{c} \text{UBC} \\ \textit{Kelowna}, \ \textit{BC} \end{array}$
University Graduate Fellowship Award Award Amount: \$6,000 (FA 2010)	$\begin{array}{c} \text{UBC} \\ \textit{Kelowna}, \ \textit{BC} \end{array}$
Summer Soil Institute Fellowship Award Amount: \$750 (SU 2010)	Colorado State University Fort Collins, CO
Department of Biology Student Travel Award Award Amount: \$500 (SU 2006)	$\begin{array}{c} \mathrm{EMU} \\ \mathit{Ypsilanti}, \ \mathit{MI} \end{array}$
Graduate Research Assistantship	EMU

Award Amount: \$19,000 (FA 2005)

Ypsilanti, MI

#### Dean's Student Travel Award

Award Amount: \$500 (SU 2005) Ypsilanti, MI

## 6 Funding, Grants, & Fellowships

#### 6.1 Public Service

[1] Klaus, A., Demma, T., and **B.M. Ohsowski**. Bee Haven Non–Profit: Grassland habitat quality improvements in a mixed–use suburban landscape with native plants. **Agency:** Openlands Green Region Grant **Amount Awarded:** \$10,000 (FA 2024)

## 6.2 Loyola University Chicago

- [1] Getzinger, G., **Ohsowski**, **B.** and S.C. Lishawa. PFAS Tributary Loading, Sediment Accumulation, and Plant Uptake in Shiawassee National Wildlife Reserve. **Agency:** USFWS Shiawassee National Wildlife Refuge GLRI Action Plan III, Focus area 1 (Toxic Substances and Areas of Concerns) **Requested Funding:** \$1,099,772 (In–Review: SEP 2024)
- [2] Lishawa, S.C. and **B.M. Ohsowski**. Controlling Invasive Plants and Reducing Phosphorus Run-off to the Saginaw Bay Area of Concern. **Agency:** USFWS Shiawassee National Wildlife Refuge GLRI Action Plan III, Focus area 2 / 3 (Invasive Species / Nonpoint Source Pollution Impacts on Nearshore Health) **Requested Funding:** \$1,497,552 (In–Review: JUL 2024)
- [3] Milanovich, J.R., Ohsowski, B., Hoellein, T., and Berg, M. How do biosolids and biochar influence aquatic biochemistry and secondary production of golf course ecosystems?. Agency: Mike Davis Program for Advancing Golf Course Management Requested Funding: \$49,956 (Declined SEP 2023).
- [4] Ohsowski, B. and Lishawa, S. Controlling Invasive Plants, Improving Waterbird Habitat, and Reducing Nutrient Run-off through Biomass Harvest, On-site Biochar Production, and Biochar Reapplication. Agency: USFWS Shiawassee National Wildlife Refuge GLRI Action Plan III, Focus area 2 (Invasive Species) Amount Awarded: \$1,166,288.
- [5] Pociask, G. (University of Illinois Urbana-Champaign[UIUC]), Carr, K.,(UIUC), Ohsowski, B., Lishawa S., and Monks, D. Enhancing Tollway Bioswale Capacity with Biochar Application and Cattail Harvesting. Agency: Illinois Tollway. Amount Awarded: \$297,500
- [6] **B.M. Ohsowski**. Unpacking the potential of biochar application to mitigate road salt and nutrient pollution in hybrid cattail invaded midwestern wetlands. **Agency:** Walder Foundation

**EMU** 

- Biota Award. Requested Funding: \$300,000 (Declined Fall 2022)
- [7] **B.M. Ohsowski**. Assessing best management practices with waste-based soil amendments for urban grassland restoration guided by traditional ecological knowledge. **Agency:** Walder Foundation Biota Award. **Requested Funding:** \$300,000 (Declined Fall 2021)
- [8] B.M. Ohsowski. 2021. Assessing the Potential of Biochar Filtration to Mitigate Road Salt and Nutrient Pollution in Midwestern Freshwater Streams and Rivers: A Stream Lab Mesocosm Experiment. Agency: Loyola University Chicago. Awarded Funding: \$10,000
- [9] Loyola Student Fellowships (FA 2015–SU 2022) [Funding: LUROP: \$46,046 for 19 students; Carbon Fellowship: \$30,000 for 3 students]
- [10] B.M. Ohsowski. 2020. Biochar Production from Great Lakes Coastal Wetland Invasive Plant Monocultures: Biochar Quality Assessment and Wetland Plant Growth Response. Agency: Loyola University Chicago. Funding: \$5,000.00
- [11] **B.M. Ohsowski** et al. 2019. Prairie recreation at LUC: Growing the influence of biodiversity on campus proposal. **Agency:** Sustainability Project Proposal. **Funding:** \$1,400.00
- [12] Bonfito, M., Keyport, S., Tomaka, C., Bajor, M., and B.M. Ohsowski. 2015. Sullivan rain garden native vegetation restoration proposal. Agency: The Green Initiative Fund at LUC. Funding: \$4,640
- [13] Landrum, N. and B.M. Ohsowski. 2015. Content trends in global sustainable business education. Agency: Center for International Business and the Center for Social Enterprise and Responsibility at LUC. Funding: \$6,000
- [14] Lishawa, S.C., Ohsowski, B.M. and N.C. Tuchman. 2015. Increasing the resilience of Great Lakes coastal wetlands to invasive species through indigenous community–researcher collaboration. Agency: Provost's Summer Research Fellowship Program at LUC. Funding: \$60,000

#### 6.3 University of British Columbia

- [1] **Ohsowski, B.M.**, Hart, M.M., Dunfield, K.E., and J.N. Klironomos. 2010. Tallgrass prairie restoration within abandoned sand and gravel pits in southern Ontario: An investigation of native prairie plant response to mycorrhizal inoculation and carbon amendments in soil. **Agency:** The Ontario Aggregate Resources Corporation, Burlington, ON. **Funding:** \$67,500
- [2] Ohsowski, B.M. and J. Pither. 2013. Workshop funding. 8<sup>th</sup> annual meeting of the Canadian Society for Ecology and Evolution in Kelowna, BC. Agency: Biodiversity Research: Integrative Training & Education, UBC, Vancouver, BC. Funding: \$1,000

[3] **Ohsowski, B.M.** and J. Pither. 2013. Workshop funding.  $8^{th}$  annual meeting of the Canadian Society for Ecology and Evolution in Kelowna, BC. Agency: Canadian Institute of Ecology and Evolution, University of Regina, Regina, SK. Funding: \$713

#### EASTERN MICHIGAN UNIVERSITY

[1] Ohsowski, B.M., Francoeur, S.N., Neely, R.K., and K.A. Kuehn. 2008. Annual secondary production of fungal and bacterial decomposers associated with standing and benthic litter of the freshwater emergent macrophyte, Typha angustifolia.. Agency: Graduate Research Assistantship at EMU. Funding: \$19,000

## Course Management

#### 7.1LOYOLA UNIVERSITY CHICAGO

## Restoration Ecology Lecture/Lab (ENVS 330/331)

FA 2017-FA 2024 Credits: 3 / 1

**Position:** Teaching Faculty

Semesters Taught: 7; Sections Taught: 7

I developed an integrated ecological restoration course to provide students with theoretical and practical knowledge to assist ecosystem recovery and species management. We visited restoration sites, introduced guest speakers, and discussed restoration strategies with land managers and scientists.

## Conservation Biology Lecture (ENVS 320)/420

FA 2014-SP 2023

Credits: 3

**Position:** Teaching Faculty

Semesters Taught: 9; Sections Taught: 9

I developed this course to introduce theory / methods in conservation biology. Students learned to apply modern principles to imperiled species and ecosystem management. In this course, I implemented an internship application assignment that created a cover letter / resume relevant for a scientific career.

#### Conservation Biology Lab (ENVS 321)

SP 2016-SP 2023

**Position:** Teaching Faculty

Credits: 1

Semesters Taught: 8; Sections Taught: 8

I developed a lab-based course introducing statistical calculations and case-studies necessary to understand issues in conservation. Students learned experimental design and applied data analysis in R. This lab course adds to our student's analytical toolbox needed for conservation professionals.

Principles of Ecology Lecture / Lab (ENVS 280/286)

Position: Teaching Faculty

Credits: 3 / 1

Semesters Taught: 3; Sections Taught: 3

[Field Course] I developed a submersed lecture/lab 3—week ecology field course for IES science majors. This LUREC course emphasized aquatic and terrestrial field work, journal writing, organismal identification, laboratory technique, data analysis, and hypothesis testing.

## Environmental Statistics (ENVS 203)

SP 2019 - FA 2020

SU 2017-SU 2022

**Position:** Teaching Faculty

Credits: 3

Semesters Taught: 3; Sections Taught: 3

I developed a freshman–level introductory course to understand basic statistics as applied to environmental science and humanities. This survey course is intended supply IES majors with foundational statistical knowledge to support upper–level IES courses. Students use real world data to interpret scientific results in R and apply results to environmental solutions and public discourse.

## Principles of Ecology Lab (ENVS 286)

SP 2015-FA 2020

**Position:** Teaching Faculty

Credits: 1

Semesters Taught: 4; Sections Taught: 4

Dr. Ray Dybzinski and I co—developed a lab course to introduce the investigation of ecological questions. This lab emphasized field work, organismal ID, experimental design, data analysis using R, and hypothesis testing.

#### Environmental Research Capstone (ENVS 391–C)

FA 2017-FA 2020

**Position:** Teaching Faculty

Credits: 3

Semesters Taught: 5; Sections Taught: 7

This course fulfills the required IES capstone for graduating seniors. Each paper / project reflects on the student's academic and extra—curricular undergraduate experiences. Students must analyze their collected data and interpret results from a multi—disciplinary lens. Student results are presented at the LUC Weekend of Excellence.

## Restoration Ecology Lecture/Lab (ENVS 330/430)

SU 2020

**Position:** Teaching Faculty

Credits: 3

Semesters Taught: 1; Sections Taught: 1

[3—Week On—line Course] I developed an undergraduate / graduate class that implemented an on-line ecological restoration course to provide students with theoretical and practical knowledge to assist ecosystem recovery and species management.

Students in the course were assigned mentorship groups to critique each other's presentations, discuss forum questions, and create an on-line class community.

## Foundations of Environmental Science I (ENVS 137)

FA 2017-FA 2019

**Position:** Teaching Faculty

Credits: 3

Semesters Taught: 3; Sections Taught: 6

I developed a freshman–level introductory course for all incoming IES majors to increase understand scientific theory related to contemporary environmental issues. This survey course is intended to play a central role in our students' lives by increasing awareness and offering realistic solutions to modern issues.

#### Restoration Ecology Lecture/Lab (ENVS 330/331)

SU 2017-SU 2018

**Position:** Teaching Faculty

Credits: 3 / 1

Semesters Taught: 3; Sections Taught: 3

[Field Course] I developed a submerged 3—week ecological restoration course to provide students with theoretical / practical knowledge to assist ecosystem recovery and species management. We visited restoration sites, introduced guest speakers, and discussed strategies with land managers and scientists. In this course, I facilitated professional connections between IES students and my network of influential actors in the field.

## Directed Readings (ENVS 399)

SP 2015-SP 2018

**Position:** Teaching Faculty

Credits: 1

Semesters Taught: 4; Sections Taught: 4

I offered opportunities to ambitious students interested in guided topic exploration. Topics included: 1) mycorrhizal fungal ecology (4 students), 2) photography and conservation (1 student), 3) Illinois *Bison bison* reintroduction (1 student), and 4) restoration impacts on urban water contamination (1 student).

## Environmental Research (ENVS 391)

SP 2015-SP 2020

**Position:** Teaching Faculty

Credits: 1-3

Semesters Taught: 8; Sections Taught: 14

These research credits support my mentored students funded by LUROP scholarships. Credits are applied to graduation in IES.

#### Loyola Seminar (FYRE) (UNIV 102)

SP 2017

**Position:** Teaching Faculty

Credits: 1

Semesters Taught: 1; Sections Taught: 1

This course introduced basic science concepts to students in the First Year Research

Experience (FYRE) program. Topics covered invasive species management techniques common in ecological restoration. This course had two parts: 1–credit SP course and three week field–based experience at LUREC.

Scientific Basis of Environmental Issues (UCSF 137)

FA 2014-FA 2016

Position: Teaching Faculty

Credits: 3

Semesters Taught: 6; Sections Taught: 13

I am a senior member in a pool of lecturers that taught a required non–major science course. This course increased understanding of contemporary environmental issues and associated scientific principles. UCSF 137 played a role in our students' lives by increasing awareness and offering realistic solutions to climate change, food systems, water resources, and biodiversity loss.

#### 7.2 University of British Columbia

## Introductory Ecology Seminar (Biol 203)

SP 2010-SP 2012

Position: Graduate Teaching Assistant

Credits: 1

Semesters Taught: 3; Sections Taught: 6

I restructured and implemented an interactive tutorial sessions that accompanied lecture topics. I integrated primary literature discussions and implemented a group project where students created an ecology–based podcast.

#### Introductory Biology Lab (Biol 116)

FA 2009-FA 2014

Position: Graduate Teaching Assistant

Credits: 1

Semesters Taught: 2; Sections Taught: 4

I taught short lectures, supported lab material, and enforced safety protocol that supported the introductory biology lecture.

#### 7.3 EASTERN MICHIGAN UNIVERSITY

## Limnology (Biol 410 / 522)

FA 2008

**Position:** Adjunct Faculty

Credits: 3

Semesters Taught: 1; Sections Taught: 1

I developed a graduate / undergraduate course addressing fundamental concepts and research skills in limnology. I evaluated students on essay exams, applied problem sets in the laboratory, presentations, and literature critiques.

#### Introductory Ecology (Biol 310)

SU 2007-FA 2008

**Position:** Adjunct Faculty

Credits: 3

Semesters Taught: 3; Sections Taught: 3

I developed lectures addressing fundamental concepts in terrestrial and aquatic ecology. I integrated basic and applied science when discussing topics on populations, communities, and ecosystems.

## Human Anatomy and Physiology (Biol 201/202)

FA 2006-WN 2008

Position: Adjunct Faculty / Lab Coordinator

Credits: 1

Semesters Taught: 4; Sections Taught: 20

I developed and taught lab material for pre–nursing and pre–occupational therapy students. As lab coordinator, I evaluated graduate teaching assistant performance, conducted lab meetings, and wrote lab exams in this two–course series.

#### Introductory Biology for Non-Majors (Biol 105)

FA 2006

**Position:** Graduate Teaching Assistant

Credits: 1

Semesters Taught: 1; Sections Taught: 1

I taught short lab lectures, assisted students with protocols, and enforced safety expectations in an intro biology lab.

## Human Anatomy and Physiology (Biol 201/202)

FA 2004–WN 2005

**Position:** Graduate Teaching Assistant

Credits: 1

Semesters Taught: 4; Sections Taught: 20

I developed and implemented lab materials, short lectures, and enforced safety protocols for pre–nursing and pre–occupational therapy students.

#### 7.4 Washtenaw Community College

## Human Anatomy and Physiology (Biol 111)

FA 2008

**Position:** Adjunct Faculty

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Credits: 1

Semesters Taught: 1; Sections Taught: 1

I taught a lab for pre–nursing students using experiments, models, and cadaver dissection. I assisted students with lecture materials and set–up lab equipment.

## 8 Graduate Student Supervision

#### 8.1 LOYOLA UNIVERSITY CHICAGO

Mackenzie Michaels (FA 2024–Present) M.Sc. Thesis Title: Here comes the Schoeno: Establishing Schoenoplectus acutus in a Typha–invaded Great Lakes Coastal Wetland with Typha–derived biochar. [Role: Thesis Supervisor]

Madi Palmquist (FA 2024–Present) M.Sc. Thesis Title: Using bioacoustics to assess the impact of hybrid cattail ( $Typha \times glauca$ ) harvesting on bird occupancy at the Shiawassee National Wildlife

Refuge. [Role: Thesis Supervisor]

**Alex Quebberman** (SP 2024–Present) *M.Sc. Thesis Title:* Determining the Presence of Non-Native Aquatic Species in Recreational Boat Harbors in Chicago, Illinois and Assessing the Diet of Invasive Scud in the Illinois River [Role: Thesis Committee Member]

**Blessing Aleladia** (SP 2023–Present) *M.Sc. Thesis Title:* Investigating the Effect of Invasive Plants-Derived Biochar on Heavy Metal Adsorption. [Role: Thesis Supervisor]

Sam Schurkamp (FA 2020–FA 2022) M.Sc. Thesis Title: Influence of biochar, Phragmites australis, and Typha x glauca on salinity in simulated wetland systems. Manuscript Published. [Role: Thesis Supervisor]

James Demastus (PhD Student at the University of Deusto, Spain) (SP 2021–Present) This mentorship was a requirement to satisfy the title of "International Doctor" during his pursuit of a doctoral degree at the University of Duesto. On this project, I was an international collaborator in conjunction with Dr. Nancy Landrum at Loyola University Chicago. During the period of JAN 2021 – AUG 2024. I mentored James as he learned data collection methods, statistical analyses in R, data interpretation, and technical writing skills necessary for peer–reviewed rigor. Manuscript Published. [Role: Supporting International Advisor]

**Logan St. John** (SU 2019–FA 2022) *M.Sc. Thesis Title:* Combined Effects of Invasive *Typha* × *glauca* and *Hydrocharis morsus–ranae* on Aquatic Macroinvertabrates in a Lake Huron Coastal Marsh. **Manuscript In–Prep** [Role: Thesis Committee Member]

**Kevin Erickson** (FA 2020–SP 2022) *M.Sc. Thesis Title:* Impact of Soil Lead Level and Phosphorus Amendment Rate on Cannabinoid Expression and Lead Uptake in Industrial Hemp (*C. sativa* L.) Flower [Role: Thesis Committee Member]

Erin Kilbane (FA 2020–SU 2021) M.Sc. Thesis Title: Modeling carbon allocation strategies for high-yielding perennial crops. Manuscript In–Review [Role: Thesis Committee Member]

## 9 Undergraduate Student Supervision

#### 9.1 Loyola University Chicago

Team Typha Field Crew Supervisor (SU 2015–Present) I am a PI for Team Typha, a Great Lakes coastal wetland research group. I play a supervisory role supporting field technicians, undergraduate student research, and graduate student research (i.e. experimental design, data collection, statistical analysis). To date, I co–supervised research for 29 LUC undergraduates and 7 LUC M.Sc. students (Kelsey Berke, Kurtis Himmler, Logan St. John, Sam Schurkamp, Blessing Aleladia, Madi

Palmquist, Mackenzie Michaels).

**LUC Restoration Club** (FA 2014–Present) I am the faculty advisor for this club. In FA 2015, we were funded by The Green Initiative Fund [Funding \$4,640.00] to convert turf grass to a native plant rain garden at LUC Lake Shore. Working with stakeholders, we continue the establishment of native plant and removal of invasive species at LUC and beyond.

**LUC Mycological Club** (FA 2015–SP 2020) I am the faculty advisor of this pending club that conducts mushroom cultivation workshops and education to support LUC students.

Loyola Undergraduate Research in Sustainability Journal (FA 2018–FA 2020) I am one of the managing editors of this internal IES research journal. I advise the student editor, Frances Rafferty, on journal edits and formatting.

Macy Gustafson (SP 2024—Present) I currently co—mentoring Macy Gustafson on her project entitled: Critically Imperiled Inland Salt Marsh Ecosystem: Assessing Typha angustifolia Invasion in One of the Great Lakes Region's Rarest Plant Communities. Macy has received two funding awards: 1) LUROP SES Fellowship Award: [Funding: \$2,000], and 2) Lee Botts Great Lakes Research and Advocacy Fellowship Award: [Funding: \$2,000]. Macy was also hired as a Research Technician for my summer research at the University of Michigan Biological Station.

Megan Wenner (SP 2024–Present) I currently co–mentoring Megan on her project entitled: Impact of competition with pickerelweed (*Pontederia cordata*) and invasive cattail (*Typha* × *glauca*) on the germination and growth of northern wild rice (*Zizania palustris*). Megan has received two funding awards: 1) LUROP SES Fellowship Award: [Funding: \$2,000], and 2) Lee Botts Great Lakes Research and Advocacy Fellowship Award: [Funding: \$2,000]. Megan was also hired as a Research Technician for my summer research at the University of Michigan Biological Station.

Alex Risdal (SP 2024–Present) I currently mentoring Axel Risdal on her project entitled: Habitat Evaluation and Species Distribution Modeling for Michigan's Bladderworts (*Utricularia spp.*). Alex has received three funding awards: 1) LUROP SES Fellowship Award: [Funding: \$2,000], 2) Lee Botts Great Lakes Research and Advocacy Fellowship Award: [Funding: \$2,000], and 3) Carbon Undergraduate Research Fellowship Award: [Funding: \$20,000]. Alex was also hired as a Research Technician for my summer research at the University of Michigan Biological Station.

Madi Palmquist (SP 2022 - SP 2024) I co-supervised Madi on her project entitled: Impact of Hybrid Cattail (*Typha* × *glauca*) on Waterbird Diversity at Shiawassee National Wildlife Refuge. She received a SES Research Fellowship [Funding: \$2,000] and the Lee Botts Great Lakes Research and Advocacy Fellowship [Funding: \$2,000]. I support Madi's research as a co-advisor of record. Madi's project investigates the impact of hybrid cattail on waterbird diversity at Shiawassee National Wildlife Refuge. Madi also participated in cattail management and data collection for the Summer 2023 field campaign at the University of Michigan Biological Station.

**Eva Bednard** (SP 2023 - SP 2024) I supervised Eva on her project entitled: Assessing biochar's influence on soil nutrients and native plants in Great Lakes coastal wetlands. She received a CAS Mulcahy Fellowship [**Funding: \$2,000**]. Eva also participated in cattail management and data collection for the Summer 2023 field campaign at the University of Michigan Biological Station. She is a funded Research Associate for the FA 2024 semester.

Claire Culvin (SU 2023) I mentored Claire Culvin, B.Sc. graduate from Michigan State University. Claire was a pre-RET (Research Experiences for Teachers) supported by secured NSF funding by Dr. Mike Grillo (LUC Biology Department) and Dr. Lara Smetana (LUC School of Education). Claire supported projects investigating habitat invasive cattail management and restoration in Northern Michigan wetlands. She is developing relationships with faculty at UMBS to facilitate field—based education in the classroom for high school students. [Funding \$6,000]

Sky Roxo (SP 2022–SP 2023) I currently mentoring Sky Roxo on her project entitled: Evaluating biochar feedstocks as an ecological restoration tool for nutrient adsorption under Typha-invaded, eutrophic wetland conditions. Sky has received three funding awards: 1) LUROP SES Fellowship Award: [Funding: \$2,000], 2) Lee Botts Great Lakes Research and Advocacy Fellowship Award: [Funding: \$2,000], and 3) Society of Wetland Scientist Research Award: [Funding: \$1,000] (1 of 10 students to receive this award at the SWS Annual Meeting 2022 - Joint Aquatic Sciences Meeting). Sky was also hired as a Research Technician for my summer research at the University of Michigan Biological Station.

Kristina Tsakos (FA 2021–SP 2023) I am supervising Kristina's two-year Carbon Fellowship [Funding \$20,000] (SP 2021 – SP 2023) to support her research analyzing the impact of biochar on heavy metal and salt removal in an IL Tollway Bioswale. Kristina also received a Society of Wetland Scientist Research Award: \$1,000 (1 of 10 students to receive this award at the SWS Annual Meeting 2022 - Joint Aquatic Sciences Meeting). Kristina was also hired as a Research Technician for my summer research at the University of Michigan Biological Station.

Timothee Staley (SU 2022) I mentored Timothee Staley, student at Illinois State University. Timothee is a pre-RET (Research Experiences for Teachers) supported by secured NSF funding by Dr. Mike Grillo (LUC Biology Department) and Dr. Lara Smetana (LUC School of Education). Timothee's project is investigating habitat suitability of wild rice in Northern Michigan wetlands. He is developing protocols that would be used in the classroom for high school education. Timothee was also submerged into my research team as a research technician at the University of Michigan Biological Station. [Funding \$6,000]

Mitch McGreal (SU 2021–2022) received an SES Research Fellowship [Funding: \$2,000], Lee Botts Great Lakes Research and Advocacy Fellowship [Funding: \$2,000], and UMBS Research Fellowship [Funding: \$1,734]. Mitch's project is analyzing the response of *Typha times glauca* and native wetland community plants (*Schoenoplectus acutus / Juncus balticus*) to restoration

feasible application rates of biochar in a wetland pot greenhouse experiment.

Cassidy Redding (SU 2020–SP 2021 / SU 2021–2022) received a SES Research Fellowship [Funding: \$2,000] in SU 2020 that supported the analysis soil data and plot GIS coordinates along gradients in Great Lakes Coastal Wetlands in northern Michigan. In SU 2021, Cassidy received an SES Research Fellowship [Funding: \$2,000], Lee Botts Great Lakes Research and Advocacy Fellowship [Funding: \$2,000], and UMBS Research Fellowship [Funding: \$2,312] to assess Typha times glauca growth allometry to predict dry biomass and hybridization status.

Elise Anhorn (SU 2020–SP 2021) received a Mulcahy Fellowship [Funding: \$2,000]. Elise is developing rope applications and load capacity using waste hybrid cattail (*Typha x glauca*).

**Gavin Chisholm** (SU 2019–SP 2020) received a Mulcahy Fellowship [**Funding: \$2,000**]. Gavin was a research technician at UMBS (SU 2019) and collected data on the influence of hybrid cattail (*Typha x glauca*) invasion and European frogbit (*Hydrocharis morsus-ranae*) on algal primary productivity.

**Rose Mohammadi** (SU 2019–SP 2020) received a IES Research Fellowship at LUC [**Funding: \$2,000**]. Rose was a research technician at UMBS (SU 2019) and collected data to create a habitat suitability model for a recent Great Lakes region invasive species, European frogbit (*Hydrocharis morsus-ranae*). She will complete a capstone course under my supervision in FA 2019.

Maggie O'Brien (SU 2018–SP 2021) received a IES Research Fellowship at LUC [Funding: \$2,000] followed by a Carbon Fellowship [Funding: \$5,000]. Maggie was a research technician at UMBS (SU 2018 / 2019) and collected data on the influence of hybrid cattail invasion age on seed viability and microbial community response.

Rene (Lexi) Belleville (SU 2018–SP 2019) received a IES Research Fellowship at LUC [Funding: \$2,000]. Lexi was a research technician at UMBS (SU 2018) and collected data on the influence of hybrid cattail on seed production and land management approaches. Her capstone research (ENVS 391–C) was presented LUC's Weekend of Excellence (SP 2019).

Nicole Spehn (FA 2017–SU 2018) I hired Nicole as a teaching assistant for Conservation Biology (SP 2018) and Restoration Ecology (SU 2018). I have supported her undergraduate research project studying muskrat influence in *Typha* invaded Great Lakes coastal wetlands. I co—supervised her field technician work at UMBS in SU 2017. Her capstone research (ENVS 391–C) was presented LUC's Weekend of Excellence (SP 2018).

**Lian Lucansky** (FA 2017–SP 2018) received a Social Justice Research Fellowship at LUC [Funding: \$2,000]. This research created an outreach database to connect social justice groups to environmental justice groups in Chicago. Her capstone research (ENVS 391–C) was presented LUC's Weekend of Excellence (SP 2018).

Mason Majszak (FA 2017–SP 2018) received a Mulcahy Fellowship [Funding: \$2,000] that organized all available data from Team *Typha's* past projects. This research allowed the group to ask questions pertaining to temporal and spatial changes across Great Lakes Coastal Wetlands. His capstone research (ENVS 391–C) was presented LUC's Weekend of Excellence (SP 2018).

Connor Tomaka (SU 2017) received a Summer Mulcahy Fellowship to conduct research at LUREC [Funding: \$2,000]. This research mapped garlic mustard population patch sizes, stem density, and plant diversity in LUREC's woodlands to assess arbuscular mycorrhizal inoculum potential. This research was presented LUC's Weekend of Excellence (SP 2018).

Loyola Biochar Group: Daphne Sugino, Angelo Kelvakis, Olivia Helms (SP 2016–SP 2017) I supervised three LUC undergraduates funded by Mulcahy LUROP Scholarships [Funding: \$2,000 each]. Project goals assessed water and soil quality in agricultural soils after the application of invasive species biochar. Students presented their research at the  $3^{rd}$  Annual Climate Change Conference and LUC's Weekend of Excellence (SP 2017).

Claudia Victoroff (FA 2016–SP 2017) received a Mulcahy Fellowship [Funding: \$2,000] that collected and identified wind–borne mycorrhizal fungal spores on rooftops at LUC and DePaul University. This research was presented at LUC's Weekend of Excellence (SP 2017).

Maria (Sam) Wherry (FA 2016–SP 2017) received a Social Justice Research Fellowship at LUC [Funding: \$2,000]. Her ethnographic research focused on the effects of an aerial fumigation program on local population resulting from the Andean Counterdrug Initiative. This research was presented at LUC's Weekend of Excellence (SP 2017).

Brittany Rivera (SP 2015–SP 2017) [McNair Scholarship Funding: \$1,000] was awarded a McNair Scholarship that prepares eligible students for doctoral studies. Her research investigated the recovery of the LUREC fen using long–term research plots. Brittany presented her research at several national conferences, the  $3^{rd}$  Annual Climate Change Conference, and LUC's Weekend of Excellence (SP 2017).

**Leann Ngo** (SP 2015–SP 2017) I co–supervised Leann's two–year Carbon Fellowship [**Funding \$15,000**] (SP 2015) with Dr. Tham Hoang. Her research analyzed heavy metal uptake in contaminated riparian wetlands in the Calumet watershed in south Chicago. She presented her research at LUC's Weekend of Excellence (SP 2017).

**Ainsley McGrath** (SP 2016–SP 2017) I co–supervised Ainsley's Provost Scholarship [Funding: **\$2,000**] with Zach Waickman in the Searle Biodiesel Lab. His project developed a database to collect, organize, and analyze amassed Biodiesel Lab data. Ainsley presented his research at LUC's Weekend of Excellence (SP 2017).

Laura Roncal (FA 2015–SP 2016) I co–supervised Laura with Dr. Nancy Landrum. Laura was hired as a student researcher to collect data from sustainability reports and academic literature in sustainable business. This work resulted in the publication *Content Trends in Sustainable Business Education: An Analysis of Introductory Courses in the U.S.* and was awarded the 2018 Emerald Literati Award for Outstanding Paper.

Amina Smajlovic (FA 2016) was an undergraduate who worked under the supervision of Drs. Dybzinski, Landrum, and myself. We jointly published *Managing for Resilience: Lessons from Ecology* in the Journal of Management for Global Sustainability. Amina presented at the  $3^{rd}$  Annual Climate Change Conference.

**Alexandra Baczynski** (FA 2015–SP 2016) was hired as a teaching assistant in my Conservation Biology lab (SP 2016). She also registered for a directed readings course researching the impact of introduced Bison on restoration success in tallgrass prairie habitat.

Agatha Penteado De Almeida (SU 2015) was an undergraduate mathematics exchange student funded by the Brazilian Scientific Mobility Program (BSMP). Agatha learned the statistical program (R), Adobe Illustrator, and analyzed data for publication.

Susanna Lohmar (SP 2015) was Dr. Bala Chaudhary's student. I assisted Susanna with statistical analysis of her LUROP project investigating the influence of arbuscular mycorrhizas and plant cover on green roofs.

#### 9.2 University of British Columbia

**Dylan Zaitsoff** (FA 2013–SP 2014) was an undergraduate under in the Dr. Hart lab. I assisted with a meta–analysis comparing taxa richness across biomes and molecular methods. This research resulted in a *New Phytologist* publication.

Gui Jun Wang (Joyce) (SU 2012) was a visiting scholar from China who collected data related to her Ph.D. research. I assisted Gui Jun with the development of research hypotheses and data collection at my Ph.D. field site.

Sarah Kruis (SU 2012–FA 2012) was my fall field assistant from the University of Western Ontario. As my field assistant, we measured vegetative growth, collected soil cores, and entered data. I connected Sarah with a summer research position in New Zealand.

**Andre Audet** (SU 2010–FA 2010) was my field assistant from UBC. I mentored him on the importance of rigorous methodology, proper experimental design, and ecological processes.

## 10 Presentations

#### 10.1 Research Oral Presentations

- [1] Ohsowski, B.M., Michaels, M.S [Student Presenter], Palmquist, M.M. [Student Presenter], S.C. Lishawa (SU 2024) Controlling Invasive Plants, Improving Waterbird Habitat, and Reducing Nutrient Run-off Through Biomass Harvest, On-site Biochar Production, and Biochar Reapplication. *Joint Presentation to Will Meeks (US Fish and Wildlife Service Midwest Regional Director)*. Shiawassee National Wildlife Refuge, Saginaw, MI
- [2] Ohsowski, B.M. Michaels, M.S [Student Presenter], Palmquist, M.M. [Student Presenter], and S.C. Lishawa(SU 2024) Controlling Invasive Plants, Improving Waterbird Habitat, and Reducing Nutrient Run-off Through Biomass Harvest, On-site Biochar Production, and Biochar Reapplication. Great Lake Restoration Initiative (GLRI): Joint Presentation to Kevin O'Donnell (GLRI Team Lead US Environmental Protection Agency) and Christie Deloria (US Fish and Wildlife Service GLRI lead). Shiawassee National Wildlife Refuge, Saginaw, MI
- [3] Aleladia, B.O. [Student Presenter], Lishawa S., Marrero, T. and **B.M. Ohsowski** (SU 2024) Investigating the Effect of Invasive Plants–Derived Biochar On Heavy Metal Adsorption. *Soil and Water Conservation Society Conference*. Myrtle Beach, SC
- [4] **Ohsowski, B.M.** (SP 2024) A biomass conundrum: Investigating biochar produced from harvested hybrid cattail to manage wetland diversity. *Wisconsin Wetlands Association*. Green Bay, WI
- [5] Palmquist, M. [Student Presenter], Lishawa S., Schurkamp, S. and B.M. Ohsowski (SP 2024) Using bioacoustics to assess the impact of invasive cattail on waterbird diversity. CELTS Undergraduate Research Symposium. LUC, Chicago, IL
- [6] Ohsowski, B.M. (FA 2023) The Impact of Climate Change on Health. The Marcella Niehoff School of Nursing 2023 Distinguished Speaker Event. LUC, Chicago, IL
- [7] **Ohsowski, B.M.** (SP 2023) Make Biochar!: Improving Soils by Carbonizing Invasive Biomass and Restoring Ecosystems. *Wild Things 2023 Conference*. Rosemont, IL
- [8] Tsakos, K. [Student Presenter], Dzyacki, S. [Student Presenter] Palmquist, M. [Student Presenter], Roxo, S. [Student Presenter] and B.M. Ohsowski [Presenter] (SP 2023) Impacts of Biochar and Invasive Macrophytes on Wetland Salinity. Wild Things 2023 Conference. Rosemont, IL
- [9] **Ohsowski, B.M.** and S. Neier-Beran (SP 2022) Widening the Lens of Instructor Presence. August 2022 Focus on Teaching and Learning Conference. LUC, Chicago, IL

- [10] Lucansky, L. [Student Presenter] and **B. M. Ohsowski**. 2018. The Carob Project. LUC's Weekend of Excellence. LUC, Chicago, IL
- [11] Majszak, M. [Student Presenter] and **B. M. Ohsowski**. 2018. Curation and database design for 15 Years of multi–institution wetland restoration data in Great Lakes coastal wetlands. LUC, Chicago, IL
- [12] Ohsowski, B.M. and A. Durnbaugh. 2017. The Climate on Campus: AJCU, Second Nature, IPEDS Carbon Pollution Summary. 2018 AASHE Conference & Expo. Association for the Advancement of Sustainability in Higher Education, San Antonio, TX
- [13] Ohsowski, B.M., Klironomos, J.N., Dunfield, K.E., and M.M. Hart. 2013. Grassland plant establishment in post—extraction sandpits: Plant response to arbuscular mycorrhizal inoculum, municipal compost, and biochar. 5<sup>th</sup> World Conference on Ecological Restoration. Society for Ecological Restoration, Madison, WI
- [14] Ohsowski, B.M., Klironomos, J.N., Dunfield, K.E., and M.M. Hart. 2013. Grassland plant establishment in post—extraction sandpits: Plant response to arbuscular mycorrhizal inoculum, municipal compost, and biochar. 8<sup>th</sup> Annual Meeting of the Canadian Society for Ecology and Evolution. Kelowna, BC
- [15] Ohsowski, B.M., Klironomos, J.N., Dunfield, K.E., and M.M. Hart. 2012. Re-vegetating post-mine sandpits: Plant response to AMF inoculum and carbon amendments. *Canadian Land Reclamation Association Annual Meeting*. Sydney, NS
- [16] Ohsowski, B.M., Hart, M.M., Dunfield, K.E., and J.N. Klironomos. 2012. Re-vegetating post-mine sandpits: Plant response to AMF inoculum and carbon amendments. Western Mycorrhizal Gathering 2012. Eatonville, WA
- [17] **Ohsowski, B.M.**, Hart, M.M., Dunfield, K.E., and J.N. Klironomos. 2011. Future directions in degraded landscape restoration. *Western Mycorrhizal Gathering 2011*. Winfield, BC

#### 10.2 Research Poster Presentations

- [1] Aleladia, B.O.[Student Presenter], Lishawa S., Marrero, T. and **B.M. Ohsowski** (SP 2024) Investigating the Effect of Invasive Plants–Derived Biochar On Heavy Metal Adsorption. *Wisconsin Wetlands Association*. Green Bay, WI
- [2] Mackenzie Michaels [Student Presenter], Lishawa S., Aleladia, B., Schurkamp, S. and B.M. Ohsowski (SP 2024) Capturing chloride in roadside bioswales on the Illinois Tollway using woody biochar. Wisconsin Wetlands Association. Green Bay, WI

- [3] Eva Bednard [Student Presenter], Lishawa S., Schurkamp, S. and **B.M. Ohsowski** (SP 2024) Assessing Biochar's Influence on Soil Nutrients and Native Plants in Great Lakes Coastal Wetlands. *CELTS Undergraduate Research Symposium*. LUC, Chicago, IL
- [4] Eva Bednard [Student Presenter], Lishawa S., Schurkamp, S. and B.M. Ohsowski (SP 2024) Assessing Biochar's Influence on Soil Nutrients and Native Plants in Great Lakes Coastal Wetlands. Wisconsin Wetlands Association. Green Bay, WI
- [5] Madi Palmquist [Student Presenter], Lishawa S., Schurkamp, S. and B.M. Ohsowski (SP 2024) Impact of Hybrid Cattail (Typha × glauca) on Waterbird Diversity. Wisconsin Wetlands Association. Green Bay, WI. Award: 2024 WWA Best Student Presentation
- [6] Tsakos, K. [Student Presenter], Ohsowski, B.M., Lishawa S., and S. Schurkamp (SP 2023) Assessing Biochar's Potential to Curb Salt Pollution in the Great Lakes. CELTS Undergraduate Research Symposium. LUC, Chicago, IL
- [7] Palmquist, M. [Student Presenter], Lishawa S., Schurkamp S. and B.M. Ohsowski(SP 2023) Utilizing Biochar to Restore Damaged Ecosystem. CELTS Undergraduate Research Symposium. LUC, Chicago, IL
- [8] Roxo, S. [Student Presenter], **Ohsowski, B.M.**, Lishawa S., and S. Schurkamp (SP 2023) Evaluating Biochar Feedstocks as an Ecological Restoration Tool for Nutrient Adsorption under Eutrophic Wetland Conditions. *Wisconsin Wetlands Association*. Eau Claire, WI
- [9] Tsakos, K. [Student Presenter], Ohsowski, B.M., Lishawa S., and S. Schurkamp (SP 2023) Assessing Biochar's Potential to Curb Salt Pollution in Freshwater Systems. Wisconsin Wetlands Association. Eau Claire, WI Award: 2023 WWA Best Student Presentation
- [10] Roxo, S. [Student Presenter], Ohsowski, B.M., Lishawa S., and S. Schurkamp (SP 2023) Evaluating Biochar Feedstocks as an Ecological Restoration Tool for Nutrient Adsorption under Eutrophic Wetland Conditions. Wisconsin Wetlands Association. Eau Claire, WI
- [11] Palmquist, M. [Student Presenter], Lishawa S., Schurkamp S. and B.M. Ohsowski (SP 2023) Utilizing Biochar to Restore Damaged Ecosystem. Wisconsin Wetlands Association. Eau Claire, WI
- [12] Redding, C. [Student Presenter] and **B. M. Ohsowski**. 2021. Biodiversity's effect on the nutrient composition of Great Lakes coastal wetlands' soils across a water level gradient. LUC's Weekend of Excellence. LUC, Chicago, IL

- [13] Anhorn, E. [Student Presenter] and **B. M. Ohsowski**. 2021. Tying It Together: From Invasive Plants to Commercial Fibers. LUC's Weekend of Excellence. LUC, Chicago, IL
- [14] Redding, C. [Student Presenter] and **B. M. Ohsowski**. 2021. Biodiversity's effect on the nutrient composition of Great Lakes coastal wetlands' soils across a water level gradient. SES Climate Change Conference. LUC, Chicago, IL
- [15] Anhorn, E. [Student Presenter] and **B. M. Ohsowski**. 2021. Tying It Together: From Invasive Plants to Commercial Fibers. SES Climate Change Conference. LUC, Chicago, IL
- [16] Niosi, O. [Student Presenter], Monks, A., Lishawa, S., Ohsowski, B.M., and N. Tuchman. 2019. Biannual Harvesting of Invasive Hybrid Cattail Alters Nutrient Availability in Great Lakes Coastal Wetlands. LUC's Weekend of Excellence. LUC, Chicago, IL
- [17] Belleville, R. [Student Presenter], Monks, A., Lishawa, S., Ohsowski, B.M., and N. Tuchman. 2019. Typha x glauca and Waterfowl Food Availability in the Great Lakes Coastal Wetlands. LUC's Weekend of Excellence. LUC, Chicago, IL
- [18] O'Brien, M. [Student Presenter], Monks, A., Lishawa, S., Ohsowski, B.M., and N. Tuchman. 2019. How Does the Time since Invasion by Hybrid Cattail Affect the Diversity of a Wetland Seed Bank? LUC's Weekend of Excellence. LUC, Chicago, IL
- [19] Spehn, N. [Student Presenter], Ohsowski, B., Carson, B., Monks, A., and S. Lishawa. 2018. Detecting Muskrat Impact on Hybrid Cattail Invasion: An Investigation in a Great Lakes Coastal Wetland. LUC's Weekend of Excellence. LUC, Chicago, IL
- [20] Tomaka, C. [Student Presenter] and **B. M. Ohsowski**. 2018. The formidable legacy of garlic mustard (*Alliaria petiolata*) at LUREC. LUC's Weekend of Excellence. LUC, Chicago, IL
- [21] Ngo, L.[Student Presenter], Carson, B. and **B.M. Ohsowski**. 2017. Invasive plant biomass harvesting as a means of conducting phytoremediation of contaminated sediments in the Grand Calumet River. LUC's Weekend of Excellence. LUC, Chicago, IL
- [22] Helms, T.[Student Presenter], Carson, B. and **B.M. Ohsowski**. 2017. The potential of creating biochar from Illinois' common, high density invasive species. LUC's Weekend of Excellence. LUC, Chicago, IL
- [23] Kelvakis, A.[Student Presenter], Carson, B. and and B.M. Ohsowski. 2017. Biochar gradients elucidate an effective way of streamlining cost-effective application rates. LUC's Weekend of Excellence. LUC, Chicago, IL

- [24] Wherry, M.[Student Presenter] and **B.M. Ohsowski**. 2017. Effects of Counternarcotic Policy in Colombia. LUC's Weekend of Excellence. LUC, Chicago, IL
- [25] Rivera, B.[Student Presenter] and **B.M. Ohsowski**. 2017. The Impact of Buckthorn Debris on Soil Quality and Native Plant Reestablishment. LUC, Chicago, IL
- [26] Victoroff, C.[Student Presenter] and **B.M. Ohsowski**. 2017. The Relative Seasonal Distribution of Arbuscular Mycorrhizal Fungi. LUC's Weekend of Excellence. LUC, Chicago, IL
- [27] Sugino, D.[Student Presenter], Carson, B. and B.M. Ohsowski. 2017. Does Biochar Have the Potential to Capture Nutrient Run-Off in Agricultural Fields? LUC's Weekend of Excellence. LUC, Chicago, IL
- [28] Durnbaugh, A. and **B.M. Ohsowski**. 2017. The climate on campus. 4<sup>th</sup> Annual Climate Change Conference. IES, LUC, Chicago, IL
- [29] Landrum, N. and **B.M. Ohsowski**. 2017. Content trends in U.S. sustainable business. 4<sup>th</sup> Annual Climate Change Conference. IES, LUC, Chicago, IL
- [30] Sugino, D.[Student Presenter], Kelvakis, A.[Student Presenter], Helms, O.[Student Presenter], Carson, B. and **B.M. Ohsowski**. 2016. Biochar and its sustainability applications. 3<sup>rd</sup> Annual Climate Change Conference. IES, LUC, Chicago, IL
- [31] **Ohsowski, B.M.** 2015. Carbon sequestration potential during the restoration of sandpits using AM fungi, biochar, and compost. 2<sup>nd</sup> Annual Climate Change Conference. IES, LUC, Chicago, IL
- [32] **Ohsowski, B.M.**, Hart, M.M., Dunfield, K.E., and J.N. Klironomos. 2011. Facilitating tallgrass prairie restoration in post–mine landscapes using mycorrhizas and carbon amendments. *Bi–annual meeting of the Soil Ecology Society*. Kelowna, BC
- [33] **Ohsowski, B.M.**, Hart, M.M., Dunfield, K.E., and J.N. Klironomos. 2011. Future directions in degraded landscape restoration. *Western Mycorrhizal Gathering 2011*. Winfield, BC
- [34] **Ohsowski, B.M.**, Hart, M.M., Dunfield, K.E., and J.N. Klironomos. 2011. Facilitating tallgrass prairie restoration in post—mine landscapes using mycorrhizas and carbon amendments. 6<sup>th</sup> Annual Meeting of the Canadian Society for Ecology and Evolution. Banff, AB
- [35] **Ohsowski, B.M.**, Straathof, A., Schierholtz, R., Klironomos, J.N., Dunfield, K.E., Wagner–Riddle, C., and M.M. Hart. 2009. Does mycorrhizal inoculum increase fungal colonization of hybrid willow roots (*Salix viminalis*)? *Bi–annual meeting of the Soil Ecology Society*. Burlington, VT

- [36] **Ohsowski, B.M.**, Francoeur, S.N., Neely, R.K., and K.A. Kuehn. 2006. Annual fungal and bacterial productivity associated with benthic and standing-dead litter in a freshwater *Typha* marsh? The 54<sup>th</sup> annual meeting of the North American Benthological Society. Anchorage, AK
- [37] Ohsowski, B.M., Collins, M.D., Tarry, D., Francoeur, S.N., Neely, R.K., and K.A. Kuehn. 2006. Annual production of decomposer fungi associated with standing-dead litter of Typha angustifolia. 2006 Spring Meeting of the Michigan Branch of the American Society for Microbiology. Big Rapids, MI
- [38] **Ohsowski, B.M.**, Collins, M.D., Tarry, D., Francoeur, S.N., Neely, R.K., and K.A. Kuehn. 2005. Annual production of decomposer fungi associated with standing-dead litter of *Typha* marsh? *The 53<sup>th</sup> annual meeting of the North American Benthological Society*. New Orleans, LA

#### 10.3 Invited Lectures

- [1] **Ohsowski, B.M.** (FA 2023) Guest Lecture–Practical Application and Making of Biochar. *Dr. Ray Dybzinski's ENVS 223 Soil Ecology*. LUC, Chicago, IL
- [2] Ohsowski, B.M. (SP 2019) Guest Lecture-Fungal Biology in Tropical Rain Forests. Fr. Steve Mitten's ENVS 345 Conservation and Sustainability of Neotropical Ecosystems. LUC, Puerto Maldonado, Peru
- [3] Ohsowski, B.M. (SP 2017) Guest Lecture–Statistical Analysis and R. Dr. Roberta Lammers ENVS 286 Principles of Ecology Lab. LUC, Chicago, IL
- [4] Ohsowski, B.M. (SP 2016) Guest Lecture–Ecological Restoration during the Winter Months. Dr. Roberta Lammers' BIOL 395 Topics in Winter Ecology. LUC, Chicago, IL
- [5] Ohsowski, B.M. (WN 2015/2016). Guest Lecture–Ecological Restoration during the Winter Months. Dr. Roberta Lammers' BIOL 395 Topics in Winter Ecology. LUC, Chicago, IL
- [6] **Ohsowski, B.M.** (WN 2015) Guest Lecture–Engaging Stakeholders in Ecological Restoration. Dr. Tania Schusler's ENVS 383 Human Dimensions of Conservation. LUC, Chicago, IL
- [7] **Ohsowski, B.M.** (WN 2015) Restoring grasslands in southern Ontario sandpits: plant and soil food web responses to arbuscular mycorrhizal fungal inoculum, biochar, and municipal compost. *IES Seminar Series*. LUC, Chicago, IL
- [8] Ohsowski, B.M. (WN 2015) Introduction to R Workshop. IES-Presentation to Dr. Chaudhary's Lab. LUC, Chicago, IL

- [9] Ohsowski, B.M. (FA 2014) Career Research, Teaching, and Mentorship Synopsis. IES Board Presentation. LUC, Chicago, IL
- [10] **Ohsowski, B.M.** (WN 2013) Grassland restoration in post-mine sandpits: Investigating plant growth dynamics and soil community development. *Biology Graduate Student Society Brown Bag Seminar Series*. UBC. Kelowna, BC
- [11] **Ohsowski, B.M.** (WN 2013) Applying to graduate school: The ins and outs. *Student Research Society*. UBC. Kelowna, BC
- [12] Ohsowski, B.M. (WN 2013) Maintaining a professional image in the information age. Women in Science and Engineering Mentoring Program, Professional Development Event. UBC. Kelowna, BC
- [13] **Ohsowski, B.M.** (WN 2013). Sowing the seeds: Grassland ecosystem re–establishment across Canada. *Central Okanagan Naturalist Club–Public Lecture*. Kelowna, BC
- [14] Ohsowski, B.M. (FA 2012) A new perspective on tallgrass prairie restoration: Facilitating primary production and carbon sequestration in post-mine landscapes using mycorrhizas and soil carbon amendments. Biology Graduate Student Society Brown Bag Seminar Series. UBC. Kelowna, BC
- [15] Ohsowski, B.M. (FA 2012) A new perspective on tallgrass prairie restoration: Facilitating primary production and carbon sequestration in post-mine landscapes using mycorrhizas and soil carbon amendments. Seminar Series Speaker. Eastern Michigan University, Ypsilanti, MI
- [16] **Ohsowski, B.M.** (SU 2012) Re-vegetating post-mine sandpits: Plant response to AMF inoculum and carbon amendments. *Ontario Stone, Sand & Gravel Association Research Tour*. Brantford, ON
- [17] **Ohsowski, B.M.** (SP 2012) Scientists and databases: Rethinking data management in the information age. Western Mycorrhizal Gathering 2012. Eatonville, WA
- [18] **Ohsowski, B.M.** (SP 2012) Scientists and databases: Rethinking data management in the information age. Species at Risk and Habitat Studies Brown Bag Series. UBC. Kelowna, BC
- [19] Ohsowski, B.M. (WN 2011) Tallgrass prairie restoration within derelict sand and gravel pits in southern Ontario: An investigation of native prairie plant response to mycorrhizal inoculation and soil carbon amendments. Species at Risk and Habitat Studies Brown Bag Series. UBC. Kelowna, BC

## 11 University Service

## 11.1 LUC CURRICULUM DEVELOPMENT AND COMMITTEES

Active Participant in CampuScape Meetings	FA 2022 – Present
NTT Promotion Committee Member for Dr. Mary Dinsmore	FA 2024 – SP 2025
Conservation and Restoration Curricular Working Group Chair	SP 2022
LUC Faculty Council Member Subcommittee: Faculty Service & Communications Subcommittee: Faculty Handbook	FA 2020 – SP 2023
TT Track Search Committee Member: Assistant/Associate Professor of Ecology (Chair: Dr. Reuben Keller)	FA 2021 – SP 2022
NTT Promotion Committee Chair for Dr. Sasha Adkins	FA 2021 – SP 2022
NTT Promotion Committee for Dr. Laura Brentner	FA 2020
Soil Ecology / Chemistry NTT Hiring Committee	SP 2020
Faculty Seminar Participant: All Things Ignatian – Catholic Intellectual Life and the Common Good	SP 2019
Course Evaluation Committee / SmartEvals Liaison	FA 2018–FA 2020
Soil Ecology / Chemistry NTT Hiring Committee	FA 2018–SP 2019
Loyola University Research in Sustainability Journal Committee (Associate Editor)	SP 2018–SP 2020
ENVS 286: Principles of Ecology Lab Development	SU 2015–Present
UCSF 137: The Scientific Basis of Environmental Issues Faculty Pool	FA 2014–FA 2019
ENVS 203: Environmental Statistics Development	SU 2016–SP 2017
Organismal Biology Curriculum Development	FA 2016
ENVS 288: AIDA Development	FA 2014–FA 2015
IES Seminar Series-Co-Organizer	FA 2016–SP 2017
IES Resource Committee	SP 2016–SP 2017
IES Undergraduate Awards Committee	SP 2015–SP 2017

#### 11.2 LUC SERVICE

## Lee Botts Fellowship

SP 2021-Present

Dr. Reuben Keller, Shane Lishawa, and I coordinate and facilitate this internal undergraduate research fellowship. Five students are selected per year to be research advocates for the Great Lakes. Students are awarded a \$2,000 fellowship to support research activities.

#### Recommendation Letters

FA 2014-Present

I have composed letters of recommendation for 148 students.

## Loyola's Dual Credit Program for Environmental Science High School Accreditation

FA 2019-Present

I mentor three AP Environmental Science High School teachers to evaluate teaching pedagogy and developed a professional development workshop. I will continue my participation in this program in this Fall 2024.

## Statistical Consultant for Stats 488

FA 2017-Present

I serve as a *client* for graduate students in Stats 488. I supply students with data that requires high-level analysis. I consulted groups and provided feedback / critiques to their analytical approach and presentations.

# Metropolitan Water Reclamation District of Greater Chicago

FA 2018–Present

Working with Dr. Joe Milanovich in Biology, we are in ongoing talks with the MWRD to convert neglected lots into restored prairie systems. These systems will serve as spaces to promote pollinators, native plant species, and research in greater Chicagoland.

#### SES Faculty and Staff Yoga

FA 2017-Present

Dr. Tania Schusler and I alternate leading a free yoga session for IES faculty and staff. Hour long sessions run approximately once a week during the FA and SP semesters.

#### **LUREC Restoration Workdays**

FA 2014-Present

On the second Saturday of each month, the LUC Restoration Club and I participate in several ecological restoration workday events at the Loyola University Retreat and Ecology Center per year.

## Internship and Graduate School Advising

FA 2014-Present

I have counseled SES undergraduate and master's students in topics regarding job applications, graduate school, and internships: 200 + students

#### LUREC Restoration Consultation

FA 2014-Present

In coordination with Dr. Lammers, I have been consulting on several projects and a grant application (i.e. submitted EPA grant for Parking Lot Swale / Detention Basin Retrofit) related to the ecological restoration vision at the LUREC property. As part of my work at LUREC, I have established long—term ecological plots to track the effectiveness of various land management strategies on wetland community recovery.

## Undergraduate Admission Open House

FA 2014-Present

To date, I have engaged in ten (10) events for undergraduate / transfer student recruitment days.

## University and SES Graduation Ceremony

FA 2014-Present

To date, I have regularly attend graduation and SES senior celebrations for outgoing senior IES students. I have presented awards for four students at the senior celebration.

#### Freshman Convocation

FA 2014-Present

To date, I have regularly attend freshman convocations and also have led two freshman discussion groups for the books *Just Mercy* and *Finding Purpose*.

#### Calls to Prospective Freshmen

SP 2016 / SP 2017

As requested by IES, I contacted students who were prospective freshmen that expressed interest in the Restoration and Conservation Major at LUC.

#### Loyola Phoenix Interview

FA 2016

Gave an interview by Loyola Phoenix editor and writer, Julie Whitehair. The article "Wind, Risky Behavior Lead to More Lake Drownings" explored the physics and safety of Lake Michigan's currents (Published on August 31, 2016)

#### 11.3 UBC SERVICE

#### **Native Plant Restoration Project**

SP 2012-SP 2013

I co-organized a 0.5 ha shrubland restoration project on a former gravel pit slope on UBC's grounds. I coordinated its implementation of student volunteers and UBC facilities.

## Biology Graduate Student Society-Founder & Chair

FA 2011-SP 2012

I established legitimacy for biology graduate students at UBC by organizing a university recognized society. Our society crafted a constitution, integrated into faculty meetings, and conducted academic and social events.

## Biology Brown Bag Seminar Series Coordinator

FA 2011-SP 2012

I organized and introduced speakers in a seminar series that highlighted graduate student research projects in biology, physical geography, and biochemistry.

## Biology Seminar Series Committee Member

FA 2010-SP 2012

I created announcement flyers and organized pizza lunches for interaction between graduate students and speakers.

## 12 Professional Experience

#### 12.1 Invited Manuscript Review

Estuaries and Coasts (AUG 2024) Restoration Ecology (Mar 2018 / May 2021 / Sep 2021 / Aug 2022) Applied Vegetation Science (Mar 2017) Plant and Soil (Feb 2017) FEMS Microbiology Ecology (Mar 2016) PeerJ (Mar 2015) Biodiversity and Conservation (Feb 2014) Botany (Feb 2013) Applied Soil Ecology (Nov 2011)

#### 12.2 Research Groups, Outreach, and Workshops

#### Wisconsin Wetlands R Workshop

SP 2024

**Title:** Demystifying R: Developing User–Friendly Workflows and Outputs for ANOVAs and Linear Models

Green Bay, WI

Green Bay, WI

This workshop used a provided data set to highlight practical workflow processes that can be used to input data, test assumptions, run statistical tests, and produce publication-quality graphical outputs for two-way ANOVAs and linear models. I interspersed short vignettes to highlight R code organization and programming tips and tricks. Undergraduate students, Madeline Palmquist, and Alex Risdal from Loyola

University Chicago assisted the workshop implementation.

## MI Field Crops Podcast Interview

Oct 2023

In the Weeds: Invasive Biochar

I was interviewed by podcast hosts (In the Weeds Series 12 Episode 5) from the Michigan State University Extension. Field Crops Educator Monica Jean, MSU LTAR Associate Director Dr. Brook Wilke, and I had a half hour interview to discuss how biochar can be made with invasive species to help with nutrient reduction in a watershed. Link: https://bit.ly/3X9D2co

#### Bee Haven Board of Trustees Member

FA 2023 – Present

Green Bay, WI

Chicagoland Region, IL

Bee Haven is a non–profit (501C3) focused on creating, preserving, and restoration native pollinator habitats for bees, butterflies, bats, and birds. I am currently an active serving member on the Board of Trustees. In September 2024, I co–authored a successful Openlands Green Region Grant **Amount Awarded:** \$10,000 (FA 2024) to support restoration on Bee Haven lands.

## Restoration Workday Engagement

FA 2014-Present

McHenry County Conservation District, Contact: Dr. Tom Simpson

Friends of Nachusa Grasslands, Contact: Cody Considine

Illinois Beach State Park, Contact: Don Wilson

Friends of the Forest Preserve, Contact: Radhika Miraglia

Illinois Nature Preserves, Contact: John Nelson

#### Great Lakes Wetland Restoration (Team Typha)

SU 2015-Present

Loyola University Chicago

Pellston, MI

I work as a co–supervisor at the University of Michigan Biological Station in Pellston, MI. This LUC research group is assessing large–scale management techniques to reduce the invasion of *Typha x glauca* (hybrid cattail) in Great Lakes coastal wetlands. Field work involves harvesting hybrid cattail and collecting data (i.e. soil coring / plant diversity measurements). This research has large–scale implications for managing cattail in Great Lakes coastal wetlands.

## Canadian Broadcast Company (CBC) Documentary

Oct 2016

"Striking a Balance" World Heritage Site Documentary

I was interviewed by documentarians at the CBC to discuss the implications of my Ph.D. research in southern Ontario. This documentary, "Striking a Balance" aired across in Canada in October 2016.

#### Mycorrhizal Distributed Graduate Seminar

WN 2011-SP 2017

National Center for Ecological Analysis and Synthesis

Santa Barbara, CA

This group conducted a meta-analysis to evaluate the mycorrhizal inoculum effectiveness in restoration scenarios. I was one of the lead organizers.

## Intro to R Workshop Instructor

SP 2013

 $8^{th}$  Annual Meeting of the CSEE

Kelowna, BC

Canadian Society for Ecology & Evolution

I developed a half—day workshop with Dr. Nicola Day that covered basic R topics for 25 attendees. We taught coding essentials, data analysis, and graphing. I acquired grant funding to cover workshop expenses.

## Co-founder, Group Coordinator, and Instructor

WN 2011-WN 2012

University of British Columbia R Users Group

Kelowna, BC

I co—developed and organized an open forum for data analysis with R. I taught sessions on R coding work flow, data analysis, and data management to graduate students and professors. I held troubleshooting sessions for students.

#### Research Assistant

WN 2009-FA 2009

University of Guelph

Guelph, ON

I organized field and greenhouse sample processing while supervising work study student projects. During this time, I developed research questions related to my Ph.D. at UBC.

#### Field Research Intern

SU 2004

McHenry County Conservation District

Ringwood, IL

I was a restoration ecology intern that conducted restoration, public outreach, analyses, and professional development workshops.

#### 12.3 Conference Organization and Support

## Wild Things Conference 2023

Feb 2017

Donald E. Stephens Convention Center

Rosemont, IL

I helped organized volunteers, provided technical support, and gave speaker introduction during the conference. This conference was also a mandatory field trip for my SP 2023 Conservation Biology Lab to volunteer for speaker introductions and technical assistance.

## Wild Things Conference 2019

Feb 2017

Little Conference on the Prairie

Rosemont. IL

Donald E. Stephens Convention Center

I organized volunteers, provided technical support, and gave speaker introduction during the conference. This conference was also a mandatory field trip for my SP 2019 Conservation Biology Lab.

## 6<sup>th</sup> Annual Climate Change Conference

Accompanying Youth to a Hope-filled Future IES, LUC

## 5<sup>th</sup> Annual Climate Change Conference

Mar 2018

Climate Change and Human Health:  $21^{st}$  Century Challenges

Chicago, IL

IES, LUC

I volunteered in the three-day conference to bring together American Jesuit Colleges and Universities and discuss climate change mitigation strategies and scientific research. At this conference, four mentored students presented a poster to disseminate their undergraduate research. I also assisted check-in procedures for the plenary address.

## Wild Things Conference 2017

Feb 2017

Chicago Wilderness Conference for People & Nature University of Illinois-Chicago

Chicago, IL

I organized volunteers and provided technical support during the implementation of the conference. This conference was also a mandatory field trip for my SP 2017 Conservation Biology Lab.

## 4<sup>th</sup> Annual Climate Change Conference

Mar 2017

Climate Justice: The Struggle for Our Common Home

Chicago, IL

IES, LUC

I volunteered in the three-day conference to bring together American Jesuit Colleges and Universities and discuss climate change mitigation strategies and scientific research. I presented a poster and contributed data for a sustainability presentation by Aaron Durnbaugh. Two mentored students presented a poster to disseminate their undergraduate research. I also assisted check-in procedures for Mary Robinson's plenary address.

## $3^{rd}$ Annual Climate Change Conference at LUC

Mar 2016

Global Climate Change: Economic Challenges and Solutions

Chicago, IL

IES, LUC

I volunteered to support a three—day conference to bring together American Jesuit Colleges and Universities and discuss climate change mitigation strategies and scientific research. Two of mentored students presented a poster to disseminate their undergraduate research. I also assisted check—in procedures for Naomi Cline's plenary address.

## Ecosystem Restoration through Invasive Plant Harvesting and Utilization

Jun 2015

Chicago, IL

IES, LUC

I participated in a two–day workshop to discuss the latest restoration techniques and biomass utilization for invasive wetland plants.

## 2<sup>nd</sup> Annual Climate Change Conference

Mar 2015

To Tend the Earth: Responding to the Climate Change Crisis  $IES,\ LUC$ 

Chicago, IL

I participated in a three–day conference to bring together American Jesuit Colleges and Universities and discuss climate change mitigation strategies and scientific research. I presented a poster to disseminate my Ph.D. research.

## Wild Things Conference 2015

Jan 2015

Chicago Wilderness Conference for People & Nature University of Illinois-Chicago

 $Chicago,\ IL$ 

I organized volunteers during the day—long conference that brought together the Chicago region's experts, professionals, and land stewards.

#### Conference Assistant / Lead Coordinator

WN 2013-SP 2013

 $8^{th}$  Annual Meeting of the CSEE

Kelowna, BC

Canadian Society for Ecology & Evolution

I delegated responsibilities to conference volunteers and work study students. I organized conference registration, activities, and submitted grant applications to support workshops.

## 13 Society Membership

Illinois Mycological Association	2016–Present
Chicago Wilderness	2015–Present
The Society for Restoration Ecology	2009–Present
The Society for Restoration Ecology (Mid-West Chapter)	2014–Present
The Soil Ecology Society	2009-Present

International Biochar Initiative	2010–Present
The Society for Restoration Ecology (BC Chapter)	2009-2014
Canadian Society of Ecology and Evolution	2010–2015
Canadian Land Reclamation Association	2012 – 2015

## 14 Computer and Programming Skills

MS Office	1997–Present
Adobe Creative Cloud 2018 (Photoshop / Illustrator)	1997–Present
R and RStudio	2010–Present
Microsoft Access	2010–Present
$ \mathbb{P}^{\mathbb{Z}} $	2014–Present
Structural Equation Modeling	2014–Present

## 15 Graduate Advisors

## 15.1 University of British Columbia

Dr. John Klironomos, Ph.D.

University of British Columbia

Okanagan Campus

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Phone: (250) 807–9254

Dr. Miranda Hart, Ph.D.

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#### 15.2 Eastern Michigan University

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