

Dr. Brian Matthew Ohsowski

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1 ACADEMIC INTERESTS

- Ecological restoration of endemic communities in degraded ecosystems
- Understand the role of soil communities in severely impacted landscapes
- Emphasize experimental design and statistical methodology in restoration ecology
- 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

Kelowna, BC, Canada

Completed: May 2015

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*

Ypsilanti, MI, U.S.A.

Completed: Jul 2008

Eastern Michigan University

Bachelor of Science (Biology Major; Chemistry Minor)

Ypsilanti, MI, U.S.A.

Completed: Dec 2003

3 ACRONYMS

Organizations:

Loyola University Chicago: *LUC*

Institute of Environmental Sustainability: *IES*

Loyola University Retreat & Ecology Campus: *LUREC*

University of British Columbia: *UBC*

Eastern Michigan University: *EMU*

University Semesters:

Fall: *FA*

Winter: *WN*

Spring: *SP*

Summer: *SU*

Scholarships / Fellowships:

Loyola Undergraduate Research

Opportunities Program: *LUROP*

4 COURSE MANAGEMENT

4.1 LOYOLA UNIVERSITY CHICAGO

Restoration Ecology Lecture/Lab (ENVS 330/331)

SU 2015–FA 2018

Position: Teaching Faculty

Credits: 3 / 1

Semesters Taught: 5; Sections Taught: 5

I developed this integrated 3–week LUREC field course (also a FA course) to provide students with theoretical and practical knowledge to assist ecosystem recovery and species management. We visited restoration sites and discussed restoration strategies with land managers and scientists.

Foundations of Environmental Science I (ENVS 137)

FA 2017–FA 2018

Position: Teaching Faculty

Credits: 3

Semesters Taught: 4; Sections Taught: 4

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.

Conservation Biology Lecture (ENVS 320)

FA 2014–SP 2018

Position: Teaching Faculty

Credits: 3

Semesters Taught: 4; Sections Taught: 4

I developed this course to introduce theory and methods in conservation. Students learned to apply modern principles to imperiled species and ecosystem management. 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 2018
Position: Teaching Faculty Credits: 1
Semesters Taught: 3; Sections Taught: 3

I developed a lab-based course introducing statistical calculations and case-studies necessary for conservation professionals. Students learned experimental design and data analysis in R applied to the field.

Environmental Research Capstone (ENVS 391–C) FA 2017–SP 2018
Position: Teaching Faculty Credits: 1–3
Semesters Taught: 2; Sections Taught: 3

This course fulfills the required IES capstone. The paper / project reflects on the student's academic and extra-curricular experiences at LUC. Research projects must analyze and interpret data from a multi-disciplinary perspective.

Directed Readings (ENVS 399) SP 2015–SP 2018
Position: Teaching Faculty Credits: 1
Semesters Taught: 4; Sections Taught: 4

I offered opportunities to select 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–FA 2017
Position: Teaching Faculty Credits: 1–3
Semesters Taught: 3; Sections Taught: 8

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

Principles of Ecology Lecture / Lab (ENVS 280/286) SU 2017
Position: Teaching Faculty Credits: 3 / 1
Semesters Taught: 1; Sections Taught: 1

I developed an integrated lecture/lab 3-week ecology field course for IES sci-

ence majors. This LUREC course emphasized aquatic and terrestrial field work, journal writing, laboratory technique, data analysis, and hypothesis testing.

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.

Principles of Ecology Lab (ENVS 286)

SP 2015–SP 2017

Position: Teaching Faculty

Credits: 1

Semesters Taught: 3; Sections Taught: 3

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

Scientific Basis of Environmental Issues (UCSF 137)

FA 2014–FA 2016

Position: Teaching Faculty

Credits: 3

Semesters Taught: 6; Sections Taught: 17

I am a senior member of lecturers that teach a required non-major environmental science course. This course increases understanding of contemporary environmental issues and associated scientific principles. ENVS 137 plays a role in our students' lives by increasing awareness and offering realistic solutions.

4.2 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

As lead graduate teaching assistant, I restructured and taught interactive tutorial sessions. 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 was a graduate teaching assistant that taught short lectures, supported lab material, and enforced safety protocol.

4.3 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 ecosystems, communities, and populations.

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 nursing and physical therapy students. As the 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 nursing and physical therapy students.

4.4 WASHTENAW COMMUNITY COLLEGE

Human Anatomy and Physiology (Biol 111)

FA 2008

Position: Adjunct Faculty

Credits: 1

Semesters Taught: 1; Sections Taught: 1

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

5 STUDENT SUPERVISION

5.1 LOYOLA UNIVERSITY CHICAGO

Field Crew Supervisor (SU 2015–Present) I am a member Team *Typha*, a Great Lakes coastal wetland research group directed by Dr. Nancy Tuchman. I play a supervisory role supporting field technicians and undergraduate student research (i.e. experimental design, data collection, statistical analysis). To date, I co-supervised research for 11 LUC undergraduates and two LUC M.Sc. students (Kelsey Berke, Kurtis Himmler).

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–Present) I am the faculty advisor of this club that conducts mushroom cultivation workshops and education to support LUC students.

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

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.

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 research 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. This research 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. This research 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 3rd 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).

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 3rd 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 3rd 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.

5.2 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.

6 TEACHING AND RESEARCH RECOGNITION

Faculty Member of the Year Finalist Student Government of Loyola Chicago and Maroon & Gold Society (SP 2018)	LUC <i>Chicago, IL</i>
Emerald Literati Award for Outstanding Paper Award Amount: NA (SU 2018)	Int. J. Sustain. Higher Ed.
Alice Bourke Hayes Award (Nomination) Award Amount: NA (SP 2017)	LUC <i>Chicago, IL</i>
Student Oral Presentation Award Award Amount: \$250 (FA 2012)	Can. Land Reclamation Assoc. <i>Sydney, NS</i>
Teaching Excellence Award Award Amount: \$500 (SP 2012)	UBC <i>Kelowna, BC</i>
Teaching Excellence Award (Nomination) Award Amount: NA (SP 2011)	UBC <i>Kelowna, BC</i>
Outstanding Classroom Lecturer (Nomination) Award Amount: NA (SP 2008)	EMU <i>Ypsilanti, MI</i>
Ronald W. Collins Research Excellence Medal Award Amount: \$250 (SU 2006)	EMU <i>Ypsilanti, MI</i>
Meta Hellwig Graduate Research Award Award Amount: \$\$4,000 (SU 2006)	EMU <i>Ypsilanti, MI</i>

7 SCHOLASTIC AND MENTORSHIP RECOGNITION

Professional Development and Travel Funding Award Amount: \$1,000 (FA 2017)	IES <i>Chicago, IL</i>
McNair Scholars Program Faculty Mentorship Award Amount: \$2,500 (FA 2016)	LUC <i>Chicago, IL</i>
Professional Development and Travel Funding Award Amount: \$1,000 (SU 2015)	IES <i>Chicago, IL</i>
SER Travel Stipend Award Amount: \$1,275 (FA 2013)	Soc. Ecol. Rest. <i>Madison, WI</i>
UBC Graduate Student Travel Grant Award Amount: \$1,000 (FA 2013)	UBC <i>Kelowna, BC</i>
University Graduate Fellowship Award Award Amount: \$6,000 (FA 2013)	UBC <i>Kelowna, BC</i>
CSEE Conference Honorarium Award Amount: \$1,000 (SP 2013)	Can. Soc. Ecol. Evol. <i>Kelowna, BC</i>
Special UBC Okanagan Award Award Amount: \$1,500 (SP 2013)	UBC <i>Kelowna, BC</i>
Ph.D. Tuition Award Award Amount: \$4,017/yr (FA 2009–FA 2013)	UBC <i>Kelowna, BC</i>
International Partial Tuition Scholarship Award Amount: \$3,182/yr (FA 2009–FA 2013)	UBC <i>Kelowna, BC</i>
University Graduate Fellowship Award Award Amount: \$6,000 (FA 2012)	UBC <i>Kelowna, BC</i>
University Graduate Fellowship Award Award Amount: \$6,000 (FA 2010)	UBC <i>Kelowna, BC</i>
Summer Soil Institute Fellowship Award Amount: \$750 (SU 2010)	Colorado State University <i>Fort Collins, CO</i>
Department of Biology Student Travel Award Award Amount: \$500 (SU 2006)	EMU <i>Ypsilanti, MI</i>

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

EMU
Ypsilanti, MI

Dean's Student Travel Award
Award Amount: \$500 (SU 2005)

EMU
Ypsilanti, MI

8 FUNDING, GRANTS, & FELLOWSHIPS

8.1 LOYOLA UNIVERSITY CHICAGO

- [1] **Loyola Student Fellowships** (FA 2015–FA 2018) [**Funding:** LUROP: \$22,000 for 11 students; Carbon Fellowship: \$10,000 for 1 student]
- [2] Bonfitto, 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
- [3] 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
- [4] 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

8.2 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. 8th 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. 8th 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

8.3 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

9 PUBLICATIONS

9.1 PEER-REVIEWED JOURNALS

- [1] van der Heyde, M., Lui, H., **Ohsowski, B.**, and M. Hart. Arbuscular mycorrhizal community recovers rapidly along a tallgrass restoration chronosequence. *Ecological Restoration* 36(2):108–111
- [2] 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
- [3] **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 Ecology* 26(1):63–72
- [4] 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
- [5] 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

- [6] **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
- [7] 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
- [8] **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
- [9] **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
- [10] Hart, M.M., Forsythe, J., **Ohsowski, 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
- [11] 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

9.2 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 Annual Report*. 15:9–13. website: <http://toarc.com/research/annual-reports.html>
- [4] **Ohsowski, B.M.**, Hart, M.M., Dunfield, K.E., and J.N. Klironomos. 2011. Tall-grass 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. Tall-grass 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>

9.3 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>

9.4 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/>

9.5 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

10 PRESENTATIONS

10.1 INVITED LECTURES

- [1] **Ohsowski, B.M.** (SP 2017) Guest Lecture–Statistical Analysis and R. *Dr. Roberta Lammers' ENVS 286 Principles of Ecology Lab.* LUC, Chicago, IL
- [2] **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
- [3] **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
- [4] **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
- [5] **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
- [6] **Ohsowski, B.M.** (WN 2015) Introduction to R Workshop. *IES–Presentation to Dr. Chaudhary's Lab.* LUC, Chicago, IL
- [7] **Ohsowski, B.M.** (FA 2014) Career Research, Teaching, and Mentorship Synopsis. *IES Board Presentation.* LUC, Chicago, IL
- [8] **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
- [9] **Ohsowski, B.M.** (WN 2013) Applying to graduate school: The ins and outs. *Student Research Society.* UBC. Kelowna, BC
- [10] **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

- [11] **Ohsowski, B.M.** (WN 2013). Sowing the seeds: Grassland ecosystem re-establishment across Canada. *Central Okanagan Naturalist Club–Public Lecture*. Kelowna, BC
- [12] **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
- [13] **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
- [14] **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
- [15] **Ohsowski, B.M.** (SP 2012) Scientists and databases: Rethinking data management in the information age. *Western Mycorrhizal Gathering 2012*. Eatonville, WA
- [16] **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
- [17] **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

10.2 CONFERENCE ORAL PRESENTATIONS

- [1] Lucansky, L. [Student Presenter] and **B. M. Ohsowski**. 2018. The Carob Project. LUC's Weekend of Excellence. LUC, Chicago, IL
- [2] 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

- [3] **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
- [4] **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. *5th World Conference on Ecological Restoration*. Society for Ecological Restoration, Madison, WI
- [5] **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. *8th Annual Meeting of the Canadian Society for Ecology and Evolution*. Kelowna, BC
- [6] **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
- [7] **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
- [8] **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

Conference Poster Presentations

- [1] 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
- [2] 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
- [3] 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

- [4] 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
- [5] 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
- [6] Wherry, M.[Student Presenter] and **B.M. Ohsowski**. 2017. Effects of Counternarcotic Policy in Colombia. LUC's Weekend of Excellence. LUC, Chicago, IL
- [7] Rivera, B.[Student Presenter] and **B.M. Ohsowski**. 2017. The Impact of Buckthorn Debris on Soil Quality and Native Plant Reestablishment. LUC, Chicago, IL
- [8] 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
- [9] 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
- [10] Durnbaugh, A. and **B.M. Ohsowski**. 2017. The climate on campus. *4th Annual Climate Change Conference*. IES, LUC, Chicago, IL
- [11] Landrum, N. and **B.M. Ohsowski**. 2017. Content trends in U.S. sustainable business. *4th Annual Climate Change Conference*. IES, LUC, Chicago, IL
- [12] Sugino, D.[Student Presenter], Kelvakis, A.[Student Presenter], Helms, O.[Student Presenter], Carson, B. and **B.M. Ohsowski**. 2016. Biochar and its sustainability applications. *3rd Annual Climate Change Conference*. IES, LUC, Chicago, IL
- [13] **Ohsowski, B.M.** 2015. Carbon sequestration potential during the restoration of sandpits using AM fungi, biochar, and compost. *2nd Annual Climate Change Conference*. IES, LUC, Chicago, IL
- [14] **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

- [15] **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
- [16] **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. *6th Annual Meeting of the Canadian Society for Ecology and Evolution*. Banff, AB
- [17] **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
- [18] **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 54th annual meeting of the North American Benthological Society*. Anchorage, AK
- [19] **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
- [20] **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 53th annual meeting of the North American Benthological Society*. New Orleans, LA

11 UNIVERSITY SERVICE

11.1 LUC CURRICULUM DEVELOPMENT AND COMMITTEES

IES Undergraduate Research Publication Committee	SP 2018–Present
ENVS 286: Principles of Ecology Lab Development	SU 2015–Present
UCSF 137: The Scientific Basis of Environmental Issues	FA 2014–Present

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–Present
IES Undergraduate Awards Committee	SP 2015–SP 2017

11.2 LUC SERVICE

Recommendation Letters FA 2014–Present

I have composed letters of recommendation for forty-four (44) students.

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 IES undergraduate students in topics regarding job applications, graduate school, and internships: 55 + students

Undergraduate Admission Open House FA 2014–Present

To date, I have engaged in seven (7) events for undergraduate / transfer student recruitment days.

University and IES Graduation Ceremony FA 2014–Present

To date, I have attended three (3) graduation and IES senior celebrations for outgoing senior IES students.

Freshman Convocation FA 2014–Present

To date, I have attended four (4) freshman convocations and also lead 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)

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.

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

Restoration Ecology (Mar 2018)

PeerJ (Mar 2015)

Applied Vegetation Science (Mar 2017)

Biodiversity and Conservation (Feb 2014)

Plant and Soil (Feb 2017)

Botany (Feb 2013)

FEMS Microbiology Ecology (Mar 2016)

Applied Soil Ecology (Nov 2011)

12.2 RESEARCH GROUPS, OUTREACH, AND WORKSHOPS

Restoration Workday Engagement

FA 2014–Present

Friends of Nachusa Grasslands, Contact: John Heneghan, 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–SU 2018

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
National Center for Ecological Analysis and Synthesis

WN 2011–SP 2017
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
8th Annual Meeting of the CSEE
Canadian Society for Ecology & Evolution

SP 2013
Kelowna, BC

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
University of British Columbia R Users Group

WN 2011–WN 2012
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
University of Guelph

WN 2009–FA 2009
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
McHenry County Conservation District

SU 2004
Ringwood, IL

I was a restoration ecology intern that conducted restoration, public outreach, and data analyses. I also participated in professional development and plant ID workshops.

12.3 CONFERENCE ORGANIZATION AND SUPPORT

5th Annual Climate Change Conference
Climate Change and Human Health: 21st Century Challenges
IES, LUC

Mar 2018
Chicago, IL

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

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

Feb 2017
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.

4th Annual Climate Change Conference

Climate Justice: The Struggle for Our Common Home
IES, LUC

Mar 2017
Chicago, IL

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.

3rd Annual Climate Change Conference at LUC

Global Climate Change: Economic Challenges and Solutions
IES, LUC

Mar 2016
Chicago, IL

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

IES, LUC

Jun 2015
Chicago, IL

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

2nd Annual Climate Change Conference Mar 2015
 To Tend the Earth: Responding to the Climate Change Crisis Chicago, IL
IES, LUC

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 Chicago, IL
of Illinois-Chicago

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
 8th 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
L ^A T _E X	2014–Present
Structural Equation Modeling	2014–Present

15 GRADUATE ADVISORS

15.1 UNIVERSITY OF BRITISH COLUMBIA

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15.2 EASTERN MICHIGAN UNIVERSITY

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