

Lauren L. Sullivan

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Education

- 2009-2014 Ph.D. Ecology and Evolutionary Biology, Iowa State University
Minor in Statistics
Co-Major Advisors: Brent Danielson, W. Stan Harpole
- 2007 B.S. with High Honors, Biology and Environmental Science, University of Michigan
Advisor: Deborah Goldberg

Positions Held

- 2019-pres. Assistant Professor; University of Missouri - Division of Biological Sciences
- 2015-2018 Postdoctoral Researcher; University of Minnesota - Dept. of Ecology, Evolution & Behavior
Supervisor: Allison Shaw
- 2008-2009 Lead Research Technician; The Corridor Project, Savannah River Site, SC
Supervisors: Lars Brudvig, Ellen Damschen, Nick Haddad, Doug Levey, Josh Tewksbury
- 2007-2008 Research Technician, Archbold Biological Station; Lake Placid, FL
Supervisors: Eric Menges and Carl Weekley

Publications

[Google Scholar](#)

Total Number of Publications: 26 (10 as first or senior author)

Total Citations: 2192

h-index: 19

†undergraduate mentee; ‡graduate mentee; *indicates equal author contribution

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| 2021 | Sullivan, L. L. , Michalska-Smith, M. J., Sperry [†] , K. P., Moeller, D. A., and Shaw, A. K. (2021). Consequences of ignoring dispersal variation in network models for landscape connectivity. <i>Conservation Biology</i> , 35(3):944–954 |
| 2020 | Shoemaker*, L. G., Sullivan*, L. L. , Donohue, I., Cabral, J. S., Williams, R. J., Mayfield, M. ., and ... Abbott, K. C. (2020). Integrating stochasticity into community ecology. <i>Ecology</i> , 101(2):e02922 |

- Muthukrishnan, R., **Sullivan, L. L.**, Shaw, A. K., and Forester, J. (2020). Trait plasticity alters the range of possible coexistence conditions in a competition-colonization trade-off. *Ecology Letters*, 23:791–799
- 2019 Firn, J., McGree, J., Harvey, E., Flores-Moreno, H., Schutz, M., Buckley, Y. M., Borer, E., Seabloom, E. W., La Pierre, K. J., MacDougall, A. M., Prober, S. M., Stevens, C. J., **Sullivan, L. L.**, Porter, E., Ladouceur, E., Allen, C., Moromizato, K. H., Morgan, J. W., Harpole, W. S., Hautier, Y., Eisenhauer, N., Wright, J., ... Wragg, P., and Risch, A. C. (2019). Leaf nutrient concentrations, but not specific leaf area, increase rapidly and predictably in response to eutrophication. *Nature Ecology and Evolution*, 3:400–406
- Snell, R. S., Beckman, N. G., Fricke, E., Loiselle, B. A., Carvalho, C. S., Jones, L. R., Lichti, N. I., Lustenhouwer, N., Schreiber, S., Strickland, C., **Sullivan, L. L.**, Cavazos, B. R., Giladi, I., Hastings, A., Holbrook, K., Jongejans, E., Kogan, O., Montano-Centellas, F., Rudolph, J., Rogers, H. S., Zwolak, R., and Schupp, E. (2019). The consequences of intraspecific variation in seed dispersal for recruitment, populations and communities. *AOB Plants*, 11:plz016
- Sperry[†], K., Hilfer[†], H., Lane, I., Petersen, J., and **Sullivan, L. L.** (2019a). Grassland diversity and movement traits alter native species spillover from remnant prairies. *Journal of Applied Ecology*, 56:2216–2224
- Sperry[†], K. P., Shaw, A. K., and **Sullivan, L. L.** (2019b). Apps can help bridge restoration science and restoration practice. *Restoration Ecology*, 27(5):934–937
- 2018 **Sullivan***, **L. L.**, Clark*, A. T., Tilman, D., and Shaw, A. K. (2018b). Mechanistically-derived dispersal kernels explain species-level patterns of recruitment and succession. *Ecology*, 99(11):2415–2420
- Sullivan***, **L. L.**, Ballen*, C. J., and Cotner, S. (2018a). Small group gender ratios impact biology class performance and peer evaluations. *PLOS ONE*, 13(4):e0195129
- Anderson, T. M., Griffith, D. M., Grace, J. B., and Lind, E M ... **Sullivan, L. L.** ... Borer, E. B. (2018). Herbivory and eutrophication mediate grassland plant nutrient responses across a global climatic gradient. *Ecology*, 99(4):822–831
- Frater, P. N., Borer, E. T., Fay, P. A., Jin, V., Knaeble, B., Seabloom, E. W., **Sullivan, L. L.**, Wedin, D., and Harpole, W. S. (2018). Nutrients and environment influence arbuscular mycorrhizal colonization both independently and interactively in *Schizachyrium scoparium*. *Plant and Soil*, 425(1-2):493–506
- Galic, N., **Sullivan, L. L.**, Grimm, V., and Forbes, V. E. (2018). When things don't add up: quantifying impacts of multiple stressors from individual metabolism to ecosystem processing. *Ecology Letters*, 21:568–577
- 2017 Harpole, W. S., **Sullivan, L. L.**, Lind, E. M., Firn, J., Adler, P. B., Borer, E. T., Chase, J., Fay, P. A., Hautier, Y., Hillebrand, H., MacDougall, A. S., and Seabloom, E. W. ... Stevens, C. J. (2017). Out of the shadows: multiple nutrient limitations drive relationships among biomass, light and plant diversity. *Functional Ecology*, 31:1839–1846
- Sullivan, L. L.**, Li, B., Miller, T. E. X., Neubert, M. G., and Shaw, A. K. (2017). Density dependence in demography and dispersal generates fluctuating invasion speeds. *Proceedings of the National Academy of Sciences*, 114(19):5053–5058

- 2016 Harpole, W. S., **Sullivan, L. L.**, Lind, E. M., Firn, J., Adler, P. B., Borer, E. T., Chase, J., Fay, P. A., Hautier, Y., Hillebrand, H., MacDougall, A. S., Seabloom, E. W., and Williams, R. ... Wragg, P. D. (2016). Addition of multiple limiting resources reduces grassland diversity. *Nature*, 537(7618):93–96
- Flores-Moreno, H., Reich, P., Lind, E. M., **Sullivan, L. L.**, Seabloom, E. W., Yahdjian, L., MacDougall, A., and Reichmann, L. ... Borer, E. T. (2016). Climate modifies response of non-native and native species richness to nutrient enrichment. *Philosophical Transactions B*, 371:20150273
- Sullivan, L. L.**, Danielson, B. J., and Harpole, W. S. (2016). Mammalian herbivores alter the population growth and spatial establishment of an early-establishing grassland species. *PLOS ONE*, 11(2):e0147715
- 2015 Seabloom, E. W., Borer, E. T., Buckley, Y. M., Cleland, E. E., Davies, K. F., Firn, J., Harpole, W. S., Hautier, Y., Lind, E. M., MacDougall, A. S., Orrock, J. L., and Prober, S. M. ... **Sullivan, L. L.** ... Yang, L. (2015). Plant species' origin predicts dominance and response to nutrient enrichment and herbivores in global grasslands. *Nature Communications*, 6:7710
- Sitters, J., Atkinson, C. L., Guelzow, N., Kelly, P., and **Sullivan, L. L.** (2015). Spatial stoichiometry: cross-ecosystem material flows and their impact on recipient ecosystems and organisms. *Oikos*, 124(7):920–930
- 2014 Haddad, N. M., Brudvig, L. A., Damschen, E. I., Evans, D. M., Johnson, B. L., Levey, D. J., Orrock, J. L., Resasco, J., **Sullivan, L. L.**, Tewksbury, J. J., Wagner, S. A., and Weldon, A. J. (2014). Potential negative ecological effects of corridors. *Conservation Biology*, 28(5):1178–1187
- Borer, E. T., Seabloom, E. W., Gruner, D. S., Harpole, W. S., Hillebrand, H., and Lind, E. M. ... **Sullivan, L. L.** ... Yang, L. (2014). Herbivores and nutrients control grassland plant diversity via light limitation. *Nature*, 508(7497):517–20
- 2013 Seabloom, E. W., Borer, E. T., Buckley, Y., Cleland, E. E., Davies, K., Firn, J., Harpole, W. S., Hautier, Y., Lind, E., Macdougall, A., Orrock, J. L., and Prober, S. M. ... **Sullivan, L. L.** ... Yang, L. (2013). Predicting invasion in grassland ecosystems: Is exotic dominance the real embarrassment of richness? *Global Change Biology*, 19(12):3677–3687
- Schafer, J. L., **Sullivan, L. L.**, Weekley, C. W., and Menges, E. S. (2013). Effects of habitat and time-since-fire on recruitment, survival, and reproduction of *Paronychia chartacea* ssp. *chartacea*, a short-lived Florida scrub endemic herb. *The Journal of the Torrey Botanical Society*, 140(2):181–195
- 2011 Adler, P. B., Seabloom, E. W., Borer, E. T., Hillebrand, H., Hautier, Y., Hector, A., Harpole, W. S., O'Halloran, L. R., and Grace, J. B. ... **Sullivan, L. L.** ... Yang, L. H. (2011). Productivity is a poor predictor of plant species richness. *Science*, 333:1750–1753
- Sullivan***, **L. L.**, Johnson*, B. L., Brudvig, L. A., and Haddad, N. M. (2011). Can dispersal mode predict corridor effects on plant parasites? *Ecology*, 92(8):1559–64
- 2010 **Sullivan, L. L.**, Wildova, R., Goldberg, D., and Vogel, C. (2010). Growth of three cattail (*Typha*) taxa in response to elevated CO₂. *Plant Ecology*, 207:121–129

Publications In Progress - Reprints available upon request

In Rev.	<p>Sullivan, L. L., Portlas[†], Z. M., and Hamilton, J. A. Local climate and habitat continuity interact to alter contemporary dispersal potential. <i>In Revision for: The American Naturalist</i></p> <p>Lynn[‡], A., Sullivan, L. L., and Galen, C. The cost of self-promotion: Ecological impact and demographic implications of the mentor effect in natural plant populations. <i>In Revision for: New Phytologist</i></p> <p>Beebe[‡], G. R., Pile Knapp, L. S., Stambaugh, M. C., Davidson, B. K., Sullivan, L. L., and Dey, D. C. Goat browsing preference and the effects of seasonal targeted goat browsing on oak woodland flora in missouri, united states. <i>Restoration Ecology (In Review)</i></p> <p>McGuire[‡], R. M., Hayashi[‡], K. T., Yan[‡], X., Cowen[‡], M. C., Carita Vaz[‡], M., Sullivan, L. L., and Kandlikar, G. S. Ecoevoapps: Interactive apps for teaching theoretical models in ecology and evolutionary biology. <i>Ecosphere (In Review)</i></p> <p>Dee, L. E., Ferraro, P. J., Severen, C., Kimmel, K., Byrnes, J., Clark, A. T., Raynaud, X., Reich, P. B., Wright, A. J., Arnillas, C. A., Davies, K. F., MacDoughall, A., Mori, A., Smith, M. D., Adler, P. B., ..., Sullivan, L. L., ..., and Loreau, M. Increases in grassland biodiversity in 11 countries decrease average ecosystem productivity. <i>Science (In Review)</i></p>
Submtd.	<p>Allbee[†], S., Rogers, H. S., and Sullivan, L. L. The effect of dispersal, herbivory, and competition on community assembly. <i>Ecology (submitted)</i></p>

Grants and Fellowships

Total: Research - \$1.86M; Scholarship - \$164,500

Pending

- 2022-2023 Joint Fire Science Program, Bureau of Land Management (\$24,802)
Effects of prescribed fire over 20 years on the ground flora and stand structure of three Missouri Ozark community types in the Current River Watershed
 Lead-PI: C. Stephen[‡], Co-PI: **L. L. Sullivan**

Current

- 2021-2025 US Forest Service (\$863,057)
Monitoring prairie restoration in conjunction with active bison grazing on Midewin National Tallgrass Prairie
 Lead-PIs: **L. L. Sullivan** & M. Byrne
- 2020-2021 Prairie Forks Conservation Area Research Grant (\$10,024)
The consequences of post-dispersal seed predation for rare, common and exotic species survival in remnant and restored prairies.
 Lead-PI: **L. L. Sullivan**
- 2020-2021 Prairie Forks Conservation Area Research Grant (\$10,558)
Assessing soil seed banks in north-central Missouri remnant prairies and a chronosequence of restored prairies.
 Lead-PI: K. Wynne, Co-PI: **L. L. Sullivan**
- 2019-2022 US Department of Agriculture Non-Assistance Cooperative Agreement. (\$362,932)

Acquisition of Ecological Measurements in the Central Mississippi River Basin LTAR Site.
Lead-PI: **L. L. Sullivan**

Past

- 2019-2020 Prairie Forks Conservation Area Research Grant (\$10,009)
Quantifying patterns of seed rain between remnant and restored prairies, and how they change with restoration age
Lead-PI: **L. L. Sullivan**
- 2016-2020 Minnesota Environment and Natural Resources Trust Fund (\$556,000)
Measuring prairie habitat connectivity: pollen and seed dispersal
Lead-PI: **L. L. Sullivan**, Co-PIs: A. K. Shaw and D. Moeller
- 2016 University of Minnesota, Institute on the Environment Mini Grant (\$3000)
Early career cross disciplinary science communication group
Lead-PI: L. Sloat, Co-PIs: L. Dee, S. Castle, L. Cline, C. Rosenfeld, L. Samberg, and **L. L. Sullivan**
- 2016 University of Minnesota, Institute on the Environment Mini Grant (\$3000)
Characterizing the distribution of plants and associated pollinators in a fragmented landscape
Lead-PI: D. Cariveau, Co-PIs: I. Lane, **L. L. Sullivan**, and A. K. Shaw
- 2012-2014 NSF; Doctoral Dissertation Improvement Grant (\$14,935)
Integrating STEM approaches to understand the dispersal of grassland plants
PI: W. S. Harpole, Co-PI: **L. L. Sullivan**
- 2011-2013 Toyota & National Audubon Society; TogetherGreen Conservation Leaders (\$10,000)
Restoring creative perspectives of native landscapes
PI: **L. L. Sullivan**
- 2011-2013 Iowa DOT; Living Roadway Trust Fund Grant Program (\$12,620)
Oakridge reconstruction project: Research experimentation and educational outreach
Lead-PI: **L. L. Sullivan**; Co-PI's: E. Bach, B. Mortensen, W. S. Harpole, K. Hofmockel
- 2011-2012 Iowa Native Plants Society; small grants program (\$500)
Effects of diversity on the prairie experience
Lead-PI: E. Bach; Co-PI's: B. Mortensen, **L. L. Sullivan**, W. S. Harpole, K. Hofmockel
- 2010-2013 NSF; Graduate Research Fellowship
Seed dispersal and life history strategy effects on spatial coexistence
PI: **L. L. Sullivan**
- 2009-2013 Iowa State University; Plant Sciences Institute Fellowship - declined 2 years
- 2009 Iowa State University; Ecology and Evolutionary Biology Fellowship - declined
- 2005 University of Michigan; UMBS-TNC grant (\$1000)
*Growth and photosynthesis of three cattail (*Typha*) taxa in response to elevated CO₂*
Lead-PI: **L. L. Sullivan**; Co-PI's: D. E. Goldberg, R. Wildova

Honors and Awards

- 2017 College of Biological Sciences Impactful Research Award for Postdoctoral Scientists - University of Minnesota
- 2007 Phi Beta Kappa - University of Michigan
- 2002-2007 University Honors (6 semesters) - University of Michigan
- 2006 Alumni War Memorial Award - The School of Natural Resources, University of Michigan
- 2003-2004 James B. Angell Scholar - University of Michigan

Selected Presentations

Invited Seminars

- 2021 *Invited Panelist for Session: Big Team Science* Metascience Conference - Virtual
- 2021 *Ecological Causes and Consequences of dispersal in restored and native grasslands* Wright State University Biology Departmental Seminar - Virtual
- 2021 *How “growing up” in collaborative science networks shapes your views on how science can be done.* Ecological Society of America Conference (Organized Inspire Session: Building Belonging in Ecology: Networks as Connectors; Networks as Disruptors) - Virtual
- 2020 *The importance of dispersal for ecological restoration.* Missouri S&T and Southern Illinois University, Edwardsville Joint Biology Departmental Seminar - Virtual
- 2020 *Natural seed dispersal can promote diversity in grassland restorations when safe sites are available* Seed Dispersal in the Anthropocene: 7th Frugivore and Seed Dispersal Conference (Organized Symposium: Applications of frugivory and seed dispersal ecology for tropical forest restoration) - Uttarakhand, India
- 2019 *Plants on the move: Ecological causes and consequences of dispersal.* Kansas State University Biology Departmental Seminar- Manhattan, KS
- 2019 *Plants on the move: Ecological causes and consequences of dispersal.* Iowa State University EEB Departmental Seminar- Ames, IA
- 2018 *Landscape context promotes plant species spillover that can increase diversity in restored prairies.* Ecological Society of America Conference (Organized Oral Session: Examining the Role of Spatial Variation in Maintaining Plant Community Diversity) - New Orleans, LA
- 2017 *Resource-driven variation in plant dispersal traits and potential movement.* Ecological Society of America Conference (Organized Oral Session: Individual variation in dispersal) - Portland, OR
- 2016 *Resource-mediated dispersal and plant coexistence.* iDiv Seminar Series - Leipzig, Germany
- Causes and consequences of grassland plant dispersal.* Carleton College Biology Department Seminar - Northfield, MN
- 2014 *Stoichiometric influence on the life-history structure and dispersal ability of grassland plant communities.* University of Minnesota EvoTwin group - Saint Paul, MN

- 2014 *Herbivores influence both dispersal distance and establishment of an annual legume (Chamaecrista fasciculata) in a tallgrass prairie restoration.* Iowa Chapter of the Wildlife Society - Ames, IA
- 2011 *Plant dispersal and spatial ecology.* Hillebrand and Kleyer lab group - Oldenburg University, Germany

Contributed Presentations

- 2019 *Plant-herbivore interactions and their influence on plant invasion rate.* Ecological Society of America Conference - Baltimore, MD
- 2015 *Plant-herbivore interactions and their influence on plant invasion rate.* Ecological Society of America Conference - Baltimore, MD
- 2014 *The influence of nutrient additions on the dispersal traits of grassland plants.* The Movement Ecology and Dispersal Conference - Aberdeen, Scotland
- 2013 *Nutrient influence on the life history states of an annual plant community.* Ecological Society of American Conference - Minneapolis, MN
- The influence of nutrient additions on dispersal traits in grassland plants.* ISU Ecology and Evolutionary Biology Spring Symposium - Ames, IA
- 2012 *Dispersal as a deterministic or stochastic process: the influence of nutrient additions on dispersal traits in grassland plants.* Ecological Society of America Conference - Austin, TX
- 2011 *Top-down and bottom-up effects on plant reproduction in a tallgrass prairie.* Ecological Society of American Conference - Pittsburg, PA
- 2010 *Parasite dispersal mode predicts connectivity effects.* Ecological Society of American Conference - Albuquerque, NM
- 2008 *Seed ecology of Paronychia chartacea ssp. chartacea.* Archbold Biological Station Intern Seminar - Lake Placid, FL
- 2007 *The effects of elevated CO₂ on the invasive potential of cattails: a comparison of Typha taxa.* University of Michigan Honors Student Seminar - Ann Arbor, MI

Mentoring

Current

Dr. Gaurav Kandlikar	Postdoc through Preparing Future Faculty Program - I am his co-mentor
Josh Klostermann	PhD Student
Zack Miller	PhD Student
Maya Parker-Smith	Masters Student
Carrie Stephen	Masters Student
Kate Wynne	PhD Student
Marissa Zaricor	PhD Student

Erica Eyerly	Undergraduate Student
Danielle Gafford	Undergraduate Student
Kelsey Jaeger	Undergraduate Student
Lisette Perez	Undergraduate Student
Savana Presson	Undergraduate Student
Brandy Williams	Undergraduate Student

Past

Blake Schreck	Undergraduate Student <i>Current: Attending Dental School</i>
Elizabeth Lopez	Undergraduate Student <i>Current: Applying for PA school</i>
Meredith Medley	Undergraduate Student <i>Current: University of Missouri Undergraduate</i>
Maya Parker-Smith	Undergraduate Student <i>Current: Joined my lab for graduate school</i>
Katie Sperry	Postbac technician. <i>Current: PhD student at Northeastern</i>
Hayley Hilfer	Postbac technician. <i>Current: Ms student at North Dakota State University</i>
Zack Radford	Undergraduate Student and Postbac technician. <i>Current: Minnesota Conservation Department</i>
Jordan Pruszenski	Postbac technician. <i>Current: Alaska Forest Service</i>

Additional Professional Training

2019-2021	THRIVE Faculty Learning Community: Bi-weekly pedagogy group for training inclusive STEM teachers - University of Missouri
2017	Workshop: Global grassland nutrient stoichiometry II, Synthesis Center for Biodiversity Research (sDiv) - Leipzig, Germany
2016	Workshop: Stochasticity and species coexistence, Synthesis Center for Biodiversity Research (sDiv) - Leipzig, Germany Workshop: Global grassland nutrient stoichiometry, Synthesis Center for Biodiversity Research (sDiv) - Leipzig, Germany
2014	Workshop: Woodstoich III Working Group - Sydney, Australia
2010-2014	Working Group: Bi-weekly pedagogy group discussing appropriate ways to promote learning in classroom instruction and assessment (LEA/RN) - Iowa State University
2012	Workshop: Enhancing Linkages between Math and Ecology (ELME) - Michigan State University, Kellogg Biological Station
2012	Seminar: Preparing Future Faculty - Iowa State University

2009-pres Working Group: The Nutrient Network

Teaching

- 2020-pres **General Ecology, Lecture and Lab** - University of Missouri
Developed and taught 5 credit course under pandemic conditions as primary instructor
- 2020-pres **Advanced Quantitative Methods in the Biological Sciences** - University of Missouri
Developed and taught 3 credit course as primary instructor
- 2014 **BIOL 471 Conservation Biology** - Iowa State University
Guest lecturer on careers and opportunities in the field
- 2012-2013 **ENSCI 202 Sustainability Learning Community Seminar** - Iowa State University
Developed and served as primary instructor for a new interdisciplinary living/learning community centered around sustainability
- 2012 **ENSCI 201 Introduction to Environmental Issues** - Iowa State University
Guest lecturer
- 2011-2013 **Spring Phenology: From snowmelt to finals** - Iowa State University
Co-developed and taught undergraduate honors seminar where students made phenological field observations and related them to ecological/evolutionary concepts (taught 3 years)
- 2011-2012 **BIOL 495 How to get into grad school** - Iowa State University
Guest lecturer on career paths and grant applications
- 2012 **BIOL 211 Introductory Biology** - Iowa State University
Guest lecturer

Equity and Outreach

- 2021-pres **Graduate Student Mentor-Mentee Program** - DBS, University of Missouri
Based on requests from BIPOC students, I organize a graduate student mentoring program where incoming graduate students are mentored by older graduate students in the University.
- 2020-pres **Graduate Student Inclusion & Equity Reading Group** - DBS, University of Missouri
I co-run a reading group with graduate students where we lead students in reading books about inclusion and equity.
- 2019 **Show Me Mizzou Day Booth Presenter** - DBS, University of Missouri
Opened my lab to the public and developed activities that demonstrate how we track and capture dispersing seeds. This was part of a program that our division put on titled "Tracking Wildlife in the 21st Century".
- 2019 **App Summary** - The Nature Conservancy, MN, ND, SD tri-state chapter
Demonstrated the utility of the web-based app we created (Sperry et al. 2019a) to help land managers decide either where to add restorations to increase connectivity in their county in Minnesota, or determine which existing grasslands are key to connectivity in their county and to protect those from tillage accordingly.
- 2015-2017 **GeraniaMania** - Anoka Middle School for the Arts and Sciences

- Developed and implemented a research project for 7th grade students investigating how fertilizer addition influenced geranium growth. The students ran their experiment for two months, and over the course of five in-class days I helped explain the scientific method, helped them develop hypotheses, graph their data and conclude findings. (*3 years*)
- 2016 **Scientific and Natural Areas Manager Outreach Event** - Prairie Dispersal Project Spoke to Northwest Minnesota Scientific and Natural Areas (SNA) Managers about our Prairie Dispersal Project occurring on Bluestem Prairie Scientific and Natural Area
- 2015-2016 **75 min. scientific investigation** - Cedar Creek Ecosystem Science Reserve Developed and implemented a 75 min. scientific investigation of how height at seed release influenced seed dispersal distance with 7th grade students. Students developed a research question and hypotheses, planned an experimental test, collected data, graphed and interpreted results. (*2 years*)
- 2012-2014 **Neighborhood Restoration Ecology Education Q&A Night** - Ames, IA Presented to the Ames area residents about our restoration ecology project and its ecological/educational significance. We allowed the audience a chance to ask questions about the project to keep these stakeholders informed.
- 2013 **Interdisciplinary Landscape Design** - Iowa State University Worked with an undergraduate Landscape Design Studio to interlace their vision for combining science and the arts with the scientific and conservation goals of our local restoration ecology research site in Ames, IA to develop feasible site plans for a publicly accessible research park.
- 2012 **Encouraging Ecology in Introductory English** - Iowa State University Presented to undergraduate English students on the history and importance of native prairie in Iowa. Students then helped with prairie planting or experimental setup related to our restoration ecology research project. Students also prepared proposals for how different stakeholders with different perspectives (e.g.: agrarian, recreationist, conservationist, etc) could use the restored prairie.
- 2012 **Science Education Lunch** - Ames Middle School Talented and Gifted Lunch Presented to 7th and 8th grade honors science students at lunch on seed dispersal and Charles Darwin's ecological experiments.
- 2012 **Prairie Planting Event** - Iowa State University Worked with Iowa State undergraduates and Ames community members to hand-seed a 4-acre experimental prairie.
- 2012 **Growing Prairies and Developing Scientists** - ISU Biological Sciences Club Presented on current restoration ecology research and provided advice on how to get to graduate school.
- 2011-2012 **Science Night** - Edwards Elementary School Designed interactive activities for elementary students about seed dispersal.
- 2010 **Continuing Education Training for Iowa Science Teachers** - Des Moines, IA Presented current research to local Iowa science teachers in an effort to encourage knowledge and interest in plants.
- 2009 **Program for Women in Science and Engineering Career Fair** - Iowa State University Designed an activity to teach middle school girls about restoration ecology and promoted careers for women in restoration science.
- 2006 **Environmental Alternative Spring Break Leader** - University of Michigan Co-led a group of 12 undergraduates to North Carolina where we restored land by planting 10,000 native Longleaf Pine trees. Prepared weekly presentations prior to the trip to educate participants on ecological and natural resource issues including: invasive species and ecological restoration.

Education Evaluation

- 2016-2017 **Honeybees, Pollination and Our Food: Program Evaluation**
 In collaboration with the Bell Museum of Minnesota and the Saint Paul Public School System, I evaluated student learning as a result of a museum-based program where 5th grade students learned about pollinators and their role for sustaining humans. I also conducted post-program surveys of teacher's impressions of the program (*2 years*)
- 2015-2017 **Cedar Creek Ecosystem Science Reserve: Program Evaluation**
 Provided statistical expertise to extract quantitative data from drawings of ecosystems before and after a program visit to Cedar Creek Ecosystem Science Reserve to determine if and how student learning improved

Academic and Institutional Service

Scientific Review

Rev. for: *Biological Conservation, Biological Invasions, Ecology, Ecology Letters, Environmental Practice, Heliyon, Journal of Ecology, Journal of Plant Ecology, Landscape Ecology, Molecular Ecology, Plant Ecology, Perspectives in Plant Ecology Evolution and Systematics, PNAS, Restoration Ecology, Scientific Reports*

University Service

2019-pres. Graduate Education Committee Member - University of Missouri
 2019-pres. Tucker Prairie Committee Member - University of Missouri
 2020-2021 Integrative Biology Faculty Search Committee Member - University of Missouri
 2017-2018 Organized EEB postdoc-invited seminar speaker (3 visits) - University of Minnesota
 2016-2017 Organized EEB seminar speaker (2 visits) - University of Minnesota
 2011-2012 President of Graduate Student Association - Iowa State University
 2010-2011 Vice President and Social Chair of Graduate Student Association - Iowa State University

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