

CURRICULUM VITAE

LIZ KOZIOL

Kansas Biological Survey and the Land Institute
University of Kansas
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a. Professional Preparation

The Land Institute &

Kansas Biological Station	Mycology	Post-doc	August 2016
Indiana University, Bloomington	Ecology	Ph. D.	July 2016
Indiana University, Bloomington	Biology	B.S.	December 2007

b. Appointments

Post-doc, Perennial Agriculture Project in conjunction with the Malone Family Land Preservation Foundation, the Land Institute and Kansas Biological Station, Lawrence, Kansas 2016-2018

Associate Instructor, Department of Biology, Indiana University, 2011-2012, 2015

Research Associate, Department of Biology, Indiana University, 2008-2016

c. Recent Publications

Koziol, Liz, and James D. Bever. (2016) "The missing link in grassland restoration: arbuscular mycorrhizal fungi inoculation increases plant diversity and accelerates succession." *Journal of Applied Ecology* 54(5) 1301:1309.

Koziol, Liz, and James D. Bever. "AMF, phylogeny, and succession: specificity of response to mycorrhizal fungi increases for late successional plants." *Ecosphere* 7.11 (2016).

Koziol, L. and Bever, J.D. (2015). Mycorrhizal Responsiveness Increases with Plant Successional stage and Demonstrates Trade-Offs with Root Fibrosity. *Ecology*. 96:1768:1774.

Middleton, E., S. Richardson, **L. Koziol,** C. Palmer, Z. Yermakov, J. Henning, P. Schultz, J.D. Bever (2015). Locally-adapted arbuscular mycorrhizal fungi improve vigor and resistance to herbivory of native prairie plant species. *Ecosphere*. 6(12):1-16

Koziol, L., Rieseberg, L. H., Kane, N. and Bever, J. D. (2012). Reduced Drought Tolerance During Domestication and the Evolution of Weediness Results from Tolerance-Growth Trade-Offs. *Evolution*. 66: 3803–3814.

Manuscripts in Press

Bauer, JT, **L. Koziol** and J.D. Bever. Late Successional Plant Species as Conservation Priorities. *American Journal of Botany*. In press.

d. Honors and Awards

2016-2018 Perennial Agriculture Project Post-doc Fellowship \$154,336

2016 Alfred Mower Fellowship, \$1,500

2016 Floyd Plant and Fungal Biology Summer Fellowship, declined, \$2234

2015-2016 USDA Agriculture and Food Research Initiative Predoctoral Fellowship, \$79,000

2014 & 2012 Charles B. Heiser Fellow \$2,000

2013 IU Biology Department Research Fellowship, \$12,000
2013 IU Sustainability Research Development Grant \$3,500
2011-2016 College of Arts and Sciences Fee Scholarships \$26,429
2012-2015 Floyd Plant and Fungal Biology Summer Fellow \$7,936

e. Invited Presentations

2017 Douglas County Master Gardeners
2017 Prairie Festival
2017 University of Kansas Libraries Gallery Lecture Series
2017 Gorrill Farmstead Scientific Outreach Conference
2016 Free State High School Laboratory Tours
2016 Gorrill Farmstead Research Station Research Update
2016 Ecology and Evolution Biology Friday Seminar KU
2016 Society for Ecological Restoration Symposia on Soil Microbes in Restoration
Bloomington, Indiana
2016 Ecology, Evolution and Behavior Brown Bag Seminar Bloomington, Indiana
2015 Eco-Lunch Seminar Bloomington, Indiana
2015 The Land Institute Salina, Kansas

f. Presentations at Scientific Meetings

2017 "Whole prairie soils and prairie mycorrhizae have similar positive effects on the growth and survival" Society for Ecological Restoration Grand Rapids, Michigan
2016 "Amending Below for Aboveground Growth" Gorrill Farmstead Research Update November 2016 Lawrence, Kansas
2016 "Native AM fungi improves establishment, growth, richness and diversity of late successional plant species" Society for Ecological Restoration Midwest 2016 Bloomington, Indiana
2015 "Inoculation with native AM fungi improves establishment and growth of late successional plant species in prairie restorations" Ecology Society of America 2015 Baltimore, Maryland
2015 "Inoculation with native AM fungi improves establishment and growth of late successional plant species in prairie restorations" Midwest Ecology and Evolution 2015
2013 "Mycorrhizal Specificity among Early and Late Successional Prairie Plants," Ecology Society of America 2013, Minneapolis, MN.
2012 "Early successional prairie plants are less mycotrophic and have greater specific root length than late successional prairie plants," Ecology Society of America 2012, Portland, OR.
Liz Koziol, Indiana University and James D. Bever, Indiana University
2011 "Weedy and domesticated populations of *Helianthus annuus* are less drought tolerant and dependent on arbuscular mycorrhizal fungi," Botany 2011, St. Louis, MO.

g. Synergistic Activities

Undergraduate Research:

During 2008-2011, I was a research lab manager at Indiana University where I trained more than 16 undergraduates, 9 of which were women or underrepresented minorities. I was science mentor for several enrichment programs including IFLE (Integrated Freshman Learning Experience), an opportunity for high school seniors matriculating into science to conduct independent research. In my capacity as a graduate student at IU during 2011-2016, I mentored or provided training for more than 21 additional undergraduate researchers, 80% of which were women, gender minorities, and/or underrepresented ethnicities in STEM fields. Many of the undergraduates that I have kept in touch with have become very successful; some have gone on to medical school, graduate school in ecology, microbiology and educational programs, and worked as lab managers in both academic and industrial laboratories.

K-12 Outreach:

I have participated in numerous science outreach events in my local community, listed below, and have partnered with IU's Biology Outreach Coordinator since 2009 for school day enrichment events. Recently, I helped my lab group teach an 8th grade science club about how mycorrhizal fungi can improve crop productivity. These kids applied this knowledge to their "Future City" engineering competition and won the regional championships.

2016 Free State Middle School Science Club Guide

2016 Free State Prairie volunteer prairie research

2016 Hilltop Garden and Nature Center volunteer workday coordinator

2015 Hilltop Garden and Nature Center Brownie butterfly garden expert

2014 Indiana University Science Fest volunteer greenhouse tour guide

2013 The Project School Science Night volunteer teaching 3rd-5th graders about seed dispersal

2013 IU Biology Club volunteer lecture about plant and fungi research

2012 Girls Inc. Nature Day Tour Guide for the forest exploration nature hike

2012 Griffy Lake invasive species removal volunteer

2011 Brownie Math and Science Day volunteer

Community Outreach:

My most recent experiment was a prairie restoration conducted at a Hilltop Gardens, a public garden center in Bloomington, IN that is managed by Indiana University. This restoration has created a sustainable, low input green area that has reintroduced more than 50 native species to the area. My restoration has received many visitors due to the large number of public school fieldtrips and community classes that are held at this garden center. Working at the public garden allowed me to be a volunteer coordinator while also training visitors about the life sciences and ecology. For instance, my experiment contains several signs that teach visitors about prairie communities, mycorrhizal fungi, and the names of twenty common prairie plants. At this site, I helped volunteers collect seeds from some of the plants at the garden which the volunteers used in a school butterfly garden. My own expertise allowed me to train the local Master Gardeners Club on the difference between native and invasive plants. Together we used these skills to clean up the garden grounds from invasive plant species.

Biology Department Workshops:

I co-organized two lecture series at IU. The first lecture series, Undergraduate Plant and Fungal Group, was aimed towards undergraduates with an interest in plant-microbe interactions. In this series, graduate students would present research results to undergrads and answered questions about research experiences such as experimental design and protocols and data

interpretation. The second series I co-organized is called Eco-Lunch. In this series, graduate students and faculty from Biology and beyond present their research ideas or results that are under various stages of development. Most recently as a post-doctoral researcher, I co-organized a mycorrhizal ecology workshop where I trained female scientists from Switzerland, Iran, and Spain on the mycorrhizal techniques necessary to conduct publishable research in the high impact journals of my field.

Produced Native AM Fungal Inocula for Commercial Purposes:

I am in the process of starting an ecologically minded business, MycoBloom LLC. The goal of MycoBloom is to provide locally adapted collections of mycorrhizal fungi tailored to specific ecosystems for use in restorations, agroecosystems, sustainable landscaping and other environments.