**Adrienne Ernst**

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**Education**

**Ph.D**. Plant Biology and Conservation **Northwestern University** 2015-2021

**B.A**. Biology and Environmental Studies, *summa cum laude* **Knox College** 2011-2015

**Professional Experience**

**Postdoctoral Fellow**, Utah State University, Department of Watershed Sciences 2021-

**Research Associate**, Synthesis Center for Conservation and Restoration, Chicago Botanic Garden, “Understory Vegetation Responses to Rapid Canopy Loss” 2021-

**Honors and Awards**

Garden Club of America Fellowship in Ecological Restoration 2019

Best Student Poster - Society for Ecological Restoration- Midwest Great Lakes 2019

Society for Ecological Restoration- Midwest Great Lakes Research Award 2018

Plant Biology and Conservation Award 2017

National Science Foundation Graduate Research Fellow 2016-2021 Alvah Peterson Biology Prize for Outstanding Senior in Biology 2015

Elected as a Junior to Phi Beta Kappa 2014

Charles and Arvilla Timme Fellowship Award 2014

Dean’s List at Knox College 2011-2015

Knox College Lincoln Scholar 2011-2015

Pfizer Special Scholar 2011-2015

**Publications**

Hipp, AL, MC Glasenhardt, ML Bowles, M Garner, BC Scharenbroch, EW Williams, RS Barak,

A Byrne, **AR Ernst**, E Grigg, MG Midgley, H Wagreich, DJ Larkin. 2018. Effects of

phylogenetic diversity and phylogenetic identity in a restoration ecology experiment. In: R Scherson, D Faith (eds) Phylogenetic Diversity: Applications and Challenges in Biodiversity Science. Springer.

*In press*:

**Ernst, AR**, RS Barak, AL Hipp, AT Kramer, HE Marx, DJ Larkin. The invasion paradox dissolves when using phylogenetic and temporal perspectives. Journal of Ecology.

Karimi, N, DJ Larkin, MC Glasenhardt, RS Barak, EW Williams, **AR Ernst**, AL Hipp. Selection on convergent functional traits drives compositional divergence in a tallgrass prairie restoration experiment. Journal of Ecology.

*In review:*

**Ernst, AR**, RS Barak, MC Glasenhardt, AT Kramer, DJ Larkin, HE Marx, RE Poulton Kamakura\*, AL Hipp. Neither phylogenetic nor functional diversity increase invasion resistance in an experimental grassland restoration. Ecological Applications.

*In revision:*

De Vitis, M, K Havens, RS Barak, L Egerton-Warburton, **AR Ernst**, M Evans, JB Fant, AJ Foxx, K Hadley, J Jabcon, J O’Shaugnessey, S Ramakrishna, D Sollenberger, S Taddeo, R Urbina-Casanova, C Woolridge, L Xu, J Zeldin, AT Kramer. Why are some species missing in restorations? A diagnostic tool for grassland ecosystems.

\*undergraduate student

**Presentations**

**Ernst, AR**, RS Barak, AT Kramer, DJ Larkin, HE Marx, AL Hipp. 2021. Phylogenetic insights to the invasion paradox. Ecological Society of America.

**Ernst, AR**, MC Glasenhardt, AT Kramer, DJ Larkin, HE Marx, AL Hipp. 2021. Testing the effects of phylogenetic and functional diversity on invaders in an experimentally restored tallgrass prairie. Society for Ecological Restoration.

**Ernst, AR**, AL Hipp, AT Kramer. 2018. The role of phylogenetic diversity in invasion resistance and community stability: Implications for restoration. Ecological Society of America. New Orleans, LA.

Karimi, N, AL Hipp, MC Glasenhardt, EW Williams, RS Barak, **AR Ernst**. 2019. Effects of phylogenetic and trait diversity in a restoration ecology experiment. Botanical Society of America. Tucson, AZ.

Diaz, R\*\*, **AR Ernst**, RE Poulton Kamakura. 2018. Invasive species: do relatives help or hinder? Chicago Public Schools Science Fair. Chicago, IL.

Hipp, AL, MC Glasenhardt, ML Bowles, M Garner, BC Scharenbrock, EW Williams, RS Barak,

**AR Ernst**, MG Midgley, DJ Larkin. 2018. Effects of phylogenetic diversity and phylogenetic

identity in a restoration ecology experiment. Botanical Society of America. Rochester, MN.

\*\*high school student

**Posters**

Knauf, K\*, **AR Ernst**. 2020. Phylogenetic diversity – a potential indicator of invasion resistance. Botanical Society of America.

**Ernst, AR**, AL Hipp, RE Poulton Kamakura\*, and AT Kramer. 2019. Going beyond richness: the effect of phylogenetic and functional diversity on invasion resistance. Society for Ecological Restoration – Midwest Great Lakes. Pella, IA. –*Best student poster*

Knauf, K\*, **AR Ernst**. 2019. Phylogenetic diversity – a potential indicator of invasion resistance. Society for the Advancement of Chicanos/Hispanics and Native Americans in Science. Honolulu, HI.

Poulton Kamakura, RE\*, **AR Ernst**, C Pfister, AT Kramer. 2018. Propagule pressure and the establishment success of nonlocal species. University of Chicago Honors Symposium. Chicago, IL.

Poulton Kamakura, RE\*, **AR Ernst**. 2018. The effects of propagule pressure and phylogenetic diversity on invasive species establishment success. Ecological Society of America. New Orleans, LA. –*1st place student poster in Restoration section*

\*undergraduate student

**Teaching Experience**

**Teaching Certificate** Center for the Integration of Research, Teaching, and 2021

Learning, Northwestern University

**Teaching Assistant** Evolutionary Processes, Northwestern University 2020

**Teaching Assistant** Plant Evolution and Diversity, Northwestern University 2020

**Teaching Assistant** Cell Biology Lab, Northwestern University 2017

**TRIO Achievement Program Tutor** in Biology and Environmental Studies,

Knox College 2014-2015

**Center for Teaching and Learning Tutor** in Environmental Studies,

Knox College 2013-2015

**Teaching Assistant** Challenges of Sustainability First Year Preceptorial,

Knox College 2014

**Mentoring Experience**

**Lake Forest College Internship** Mentored one undergraduate student fall 2019

**Chicago Public Schools Science Fair** Mentored one high school student fall 2018

**University of Chicago Honors Thesis** Served as research adviser for student 2017-2018

**Chicago Botanic Garden Research Experience for Undergrads** Mentored two undergraduate students summer 2017 and summer 2019

**Chicago Botanic Garden College First** Mentored two high school students summer 2017 and summer 2019

**Research Experience**

**Honors Thesis**, Knox College; “Development of a pattern language for restoration ecology”advised by Dr. Stuart Allison 2014-2015

**Ford Fellowship**, Knox College; “The potential of pattern language for restoration ecology”

advised by Dr. Stuart Allison Summer 2014

**Mellon Community Based Research Award**, Knox College, “Characterization of the local food economy in Galesburg, Illinois: the potential for local food market expansion”

advised by Dr. Peter Schwartzman 2012

**Tyson Environmental Research Apprenticeship**, Washington University in St. Louis, “Pollinator preference in an urban restored savanna” advised by Steve Buback 2010

**Outreach Experience**

**Tyson Research Center**, 2021, Invited seminar to discuss graduate school and research with undergraduate and high school students at Washington University in St. Louis’ field station

**Invasive Plant Association of Wisconsin Newsletter** Spring 2020 issue “Testing native diversity as a tool against invasive species”

**Downers Grove North High School** Designed data collection activity at Morton Arboretum for AP Biology classes 2019

**Chicago Botanic Garden Science Festival** 2018

**Chicago Wilderness Prairie Climate Change Adaptation Plan** Advisory board member 2018

**Mastering Plant Science Team** Ecological Society of America 2017-2018

**Academic Service**

**Graduate Leadership and Advocacy Council** Department Representative 2019-2020

**Professional Development Committee** Plant Biology and Conservation Department 2019

**Safe and Welcoming Environment Chair** Plant Biology and Conservation Department 2018

**Journal Club Chair** Plant Biology and Conservation Department 2017-2018

**Recruitment Chair** Plant Biology and Conservation Department 2016-2017

**Reviewer**

Journal of Ecology

Natural Areas Journal

**Affiliations**

Society for Ecological Restoration

Ecological Society of America

Phi Beta Kappa