

## Education

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**PhD in Ecology, Evolution, and Behavior** 2011–2017  
University of Minnesota, St. Paul, MN  
Minor in Risk Analysis for Introduced Species and Genotypes

**BS in Biology** 2007–2011  
Georgia Institute of Technology, Atlanta, GA

### Additional Training

NSF Cyber Carpentry: Data Life-Cycle Training, Chapel Hill, NC July 2019  
Enhancing Linkages between Math and Ecology, Kellogg Biological Station, MI June 2013  
Ecology and Evolution of Infectious Diseases Workshop, Ann Arbor, MI May 2012

## Professional Experience

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**Postdoctoral Research Associate**  
Agronomy Department, University of Florida, Gainesville, FL 2018–present

### PhD Candidate

Graduate Research Assistant, Minnesota Invasive Terrestrial Plants and Pests Center 2017  
Graduate Teaching Assistant, College of Biological Sciences 2014–2017  
Graduate Program Fellow, Department of Ecology, Evolution, and Behavior 2016  
NSF Graduate Research Fellow 2013–2014  
NSF IGERT Fellow in Risk Assessment of Introduced Species and Genotypes 2011–2013

### Undergraduate Researcher

Department of Biology, Georgia Institute of Technology, Atlanta, GA 2009–2011  
NSF REU, St. Olaf College, Northfield, MN 2010  
NSF REU, University of California, Santa Barbara, CA 2009  
SURE Fellow, Emory University, Atlanta, GA 2008

## Peer-Reviewed Publications

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\*undergraduate mentee †contributed equally

Benitez, L. \*, **A. E. Kendig**, A. Adhikari, K. Clay, R. D. Holt, E. Goss, S. Luke Flory. Invasive grass litter suppresses a native grass species and promotes disease. *Ecosphere*: accepted. <https://doi.org/10.1101/2021.04.07.437244>

Kazanski, C., J. Cowles, S. Dymond, A. Clark, A. David, J. M. Jungers, **A. E. Kendig**, C. Riggs, J. Trost, and X. Wei. 2021. Water availability modifies productivity response to biodiversity and nitrogen in long-term grassland experiments. *Ecological Applications* 31: e02363. <https://doi.org/10.1002/eap.2363>

**Kendig, A. E.**†, V. J. Svahnström\*, A. Adhikari, P. F. Harmon, and S. L. Flory. 2021. Emerging fungal pathogen of an invasive grass: Implications for competition with native plant species. *PLoS ONE* 16: e0237894. <https://doi.org/10.1371/journal.pone.0237894>

Phan, Tin, B. Pell, **A. E. Kendig**, E. T. Borer, and Y. Kuang. 2021. Rich dynamics of a simple delay host-pathogen model of cell-to-cell infection for plant virus. *Discrete and Continuous Dynamical Systems-B* 26: 515539. <https://doi.org/10.3934/dcdsb.2020261>

**Kendig, A. E.**, E. R. Spear, S. C. Daws, S. L. Flory, and E. A. Mordecai. 2021. Native perennial and non-native annual grasses shape pathogen community composition and disease severity in a California grassland. *Journal of Ecology* 109: 900–912. <https://doi.org/10.1111/1365-2745.13515>

**Kendig, A. E.**, E. T. Borer, E. N. Boak\*, T. C. Picard\*, and E. W. Seabloom. 2020. Host nutrition mediates interactions between plant viruses, altering transmission and predicted disease spread. *Ecology* 101: e03155. <https://doi.org/10.1002/ecy.3155>

Goss, E. M., **A. E. Kendig**, A. Adhikari, B. Lane, N. Kortessis, R. D. Holt, K. Clay, P. F. Harmon, and S. L. Flory. 2020. Disease in invasive plant populations. *Annual Review of Phytopathology* 58: 15.1–15.2. <https://doi.org/10.1146/annurev-phyto-010820-012757>

- Pell, B., **A. E. Kendig**, E. T. Borer, and Y. Kuang. 2019. Modeling nutrient and disease dynamics in a plant-pathogen system. *Mathematical Biosciences and Engineering* 16: 234–264. <https://doi.org/10.3934/mbe.2019013>
- Kendig, A. E.**, E. T. Borer, C. E. Mitchell, A. G. Power, and E. W. Seabloom. 2017. Characteristics and drivers of plant virus community spatial patterns in US west coast grasslands. *Oikos* 126: 1281–1290. <https://doi.org/10.1111/oik.04178>
- Seabloom, E. W., E. T. Borer, K. Gross, **A. E. Kendig**, C. Lacroix, C. E. Mitchell, E. A. Mordecai, and A. G. Power. 2015. The community ecology of pathogens: coinfection, coexistence and community composition. *Ecology Letters* 18: 401–415. <https://doi.org/10.1111/ele.12418>
- MacDougall, A. S., J. R. Bennett, J. Firn, E. W. Seabloom, E. T. Borer, E. M. Lind, J. L. Orrock, W. S. Harpole, Y. Hautier, P. B. Adler, E. Cleland, K. Davies, B. Melbourne, S. M. Prober, J. D. Bakker, P. A. Fay, V. L. Jin, **A. Kendig**, K. J. La Pierre, J. Moore, J. Morgan, and C. J. Stevens. 2014. Anthropogenic-based regional-scale factors most consistently explain plot-level exotic diversity in grasslands. *Global Ecology and Biogeography* 23: 802–810. <https://doi.org/10.1111/geb.12157>

## Peer-Reviewed Book Chapter

- Kendig, A. E.**, S. L. Flory, E. M. Goss, R. D. Holt, K. Clay, P. F. Harmon, B. R. Lane, A. Adhikari, and C. M. Wojan. The Role of Pathogens in Plant Invasions. 2020. Anna Traveset and David M. Richardson, editors. *Plant Invasions: The Role of Biotic Interactions*. CAB International Press. Wallingford, UK.

## Preprints

- Easterday, C.\*, **A. E. Kendig**, C. Lacroix, E. W. Seabloom, and E. T. Borer. Soil microbes mediate the effects of nitrogen supply and co-inoculation on Barley Yellow Dwarf Virus in *Avena sativa*. <https://doi.org/10.1101/2021.04.28.441777>

## Datasets

- Kendig, A. E.**, V. J. Svahnström, A. Adhikari, P. F. Harmon, and S. L. Flory. 2021. Emerging fungal pathogen of an invasive grass: Implications for competition with native plant species (Version v1.0). Environmental Data Initiative. <https://doi.org/10.6073/pasta/c85303b29d66e7deb3387215a07015be>
- Kendig, A. E.**, E. R. Spear, S. C. Daws, S. L. Flory, & E. A. Mordecai. 2020. Dataset from: Native perennial and non-native annual grasses shape pathogen community composition and disease severity in a California grassland (Version v1.0). Journal of Ecology. Zenodo. <http://doi.org/10.5281/zenodo.4062434>
- Kendig, A. E.**, E. T. Borer, E. N. Boak, T. C. Picard, and E. W. Seabloom. 2020. Soil nitrogen and phosphorus effects on plant virus density, transmission, and species interactions (Version v2.0). Environmental Data Initiative. <https://doi.org/10.6073/pasta/00a35cbd4a9b2a007433c3d2be0d1742>

## Grants and Awards

Army Corps of Engineers: Using Long-Term Datasets to Understand Impacts of Aquatic Plant Management in Florida; Co-PI (\$348,416)	2020
Travel Award, NSF Cyber Carpentry Workshop: Data Life-Cycle Training (\$682)	2019
Thompson Earth Systems Institute Outreach Grant (\$665)	2018
Travel Award, Dept. of EEB, UMN (3 awards, \$2,068)	2013–2018
Alexander and Lydia Anderson Research Grant, UMN (\$3,000)	2015
Research Award, Dept. of EEB, UMN (2 awards, \$3,944)	2014–2015
National Science Foundation Graduate Research Fellowship Program (\$30,000)	2013–2014
Research and Stipend Award, HHMI Research Mentor Program, UMN (\$3,000)	2014
Research Award, ISG-IGERT Program, UMN (\$2,000)	2013
Travel Award, Enhancing Linkages between Math and Ecology (travel, room, and board)	2013
Travel Award, Ecology and Evolution of Infectious Diseases Workshop (\$526)	2012
National Science Foundation Integrative Graduate Education and Research Traineeship (IGERT) in Risk Assessment of Introduced Species and Genotypes (ISG) (\$60,000)	2011–2013
Georgia HOPE Scholarship (full undergraduate tuition)	2007–2011
William-Walls Life Science Award (\$500)	2011
Travel Award, ACC Meeting of the Minds (travel, room, and board)	2011
President's Undergraduate Research Award (\$1000)	2010
Ryder Roundtable Scholarship (\$10,000)	2007

## Invited Presentations

Guest Lecture, Invasion Ecology, Auburn University, virtual	2021
Panelist, Community Coding Groups, ResBaz (Research Bazaar), Gainesville, FL	2019
Guest Lecture, Biological Invaders, University of Florida, Gainesville, FL	2018
Seminar, Department of Plant Pathology, University of Minnesota, St. Paul, MN	2018
Seminar, INRA Plant Pathology Unit, Avignon, France	2017
Brown Bag Seminar, Kellogg Biological Station, Michigan State University, Hickory Corners, MI	2017
Interview, University of Florida, Gainesville, FL	2017
Interview, Stanford University, Stanford, CA	2017
Five Minute Thesis Presentation, UMN SIAM Minneapolis, MN	2016

## Co-Organized Symposia

<i>Invasive Species and Infectious Diseases: Interactive Effects in Ecological Communities.</i> Symposium, Ecological Society of America (ESA) Annual Meeting: virtual.	2020
<i>When a Raindrop is a Tsunami: Impacts of Disturbance on Plant-Associated Microbial Communities.</i> Organized Oral Session, ESA Annual Meeting: New Orleans, LA.	2018
<i>The Introduction of Microbes: For Better or for Worse.</i> University of Minnesota ISG-IGERT Annual Symposium: St. Paul, MN	2013

## Contributed Presentations

<i>Evaluating the long-term effects of aquatic invasive plant management on Florida plant communities.</i> Aquatic Plant Management Society Annual Meeting: virtual (poster)	2021
<i>Generalist fungal pathogens may increase the impacts of an invasive understory grass on native grasses.</i> ESA Annual Meeting: virtual (talk)	2020
<i>Effects of pathogen accumulation on native-invasive plant interactions.</i> ESA Annual Meeting: Louisville, KY (talk)	2019
<i>Pathogen accumulation on an invasive species: Implications for native-invasive interactions.</i> Florida Exotic Pest Plant Council Annual Symposium: Daytona Beach Shores, FL (poster)	2019
<i>Pathogen accumulation on an invasive species: Implications for native-invasive interactions.</i> Emerging Pathogens Institute Research Day: Gainesville, FL (poster)	2019
<i>EDDMapS Plant Damage: Using citizen science to understand drivers of invasive plant disease and herbivory.</i> North American Invasive Species Management Association/Upper Midwest Invasive Species Joint Conference: Rochester, MN (talk)	2018
<i>Native and invasive grasses share foliar fungal pathogens.</i> ESA Annual Meeting: New Orleans, LA (talk)	2018
<i>Plant size-virus richness relationships depend on host species and nitrogen inputs.</i> Population Biology of Vector-borne Diseases Symposium: Athens, GA (poster)	2018
<i>Soil nutrients and within-host niche differentiation mediate plant virus interactions.</i> Jacques Monod Conference: Roscoff, France (talk)	2017
<i>Nutrient mediation of within-host and among-host plant virus dynamics.</i> ESA Annual Meeting: Ft. Lauderdale, FL (talk)	2016
<i>The power of analogy: Unifying principles of infectious disease.</i> 5 <sup>th</sup> International Conference on Infectious Disease Dynamics: Clearwater Beach, FL (poster)	2015
<i>Using spatial patterns to infer disease processes in a multi-host, multi-pathogen system.</i> ESA Annual Meeting: Minneapolis, MN (talk)	2013
<i>Productivity and soil characteristics as indices of tallgrass prairie success.</i> ESA Annual Meeting: Austin, TX (poster)	2011
<i>Characterization of the chemical defenses of Sagittaria graminea, a freshwater plant, against crayfish herbivory.</i> ACC Meeting of the Minds: Miami, FL (poster)	2011
<i>The impact of paternal involvement on patterns of brain activity to male and female speech.</i>	2008

## Teaching and Mentoring

Instructor, Data Carpentry, The Carpentries	2020–present
Teaching Assistant, Toward Conquest of Disease, University of Minnesota (2 semesters)	2016–2017
Teaching Assistant, Ecology, University of Minnesota (2 semesters)	2015–2016
Teaching Assistant, Foundations of Biology II, University of Minnesota (1 semester)	2014
Teaching Assistant, Honors Biological Principles, Georgia Tech (1 semester)	2010
Teaching Assistant, Freshman Seminar, Georgia Tech (1 semester)	2009
University of Florida undergraduate mentees	2018–2020
Liliana Benitez (NSF REU, New College of Florida), Zobia Chanda, Trevor Green, Mariam Higginbotham, Zadok Jollie, Daniela Menendez, David Notman, Teresa Orosa, Shannon Regan, Penny Reif, Callie San Antonio, Vida Svahnström (NSF REU, University of St. Andrews), Ryan Truesdell	
University of Minnesota undergraduate mentees	2013–2017
Emily Boak (directed research), Ryan Campbell, Nicholas Cupery (honors thesis), Casey Easterday (NSF REU), Jessica Lettelleir, Timothy Martin, Tashina Picard (HHMI Transfer Student Program, UROP Program), Kurra Renner, Luc Robichaud, Alexis Rogers	

## Science Outreach and Education

Organizer, <i>EDDMapS Disease Detectives</i>	2018–present
Collect citizen science data on invasive plant infectious diseases with EDDMapS.org.	
Speaker, <i>UF CPET Climate Change Resiliency Program</i>	2020
Taught a virtual lesson on invasive species and infectious disease to high school students.	
Organizer, <i>Coding in the Environmental Sciences Workshops</i>	2017–2019
K-12 students to learn about environmental science research and basic coding.	
Volunteer, <i>Collaborative Curriculum Design for Invasive Species Education</i>	2019
Helped Florida K-12 teachers design lesson plans that incorporate authentic science.	
Volunteer, <i>Girls Who Code</i>	2016–2017
Mentored K-12 students learning how to code and build a smartphone app.	
Curriculum Developer and Teacher, <i>Market Science</i>	2015–2017
Science demonstrations at local farmer's markets and events.	
Guest Teacher, <i>Heritage Middle School</i> and <i>Southside Family Charter School</i>	2011–2017
Taught lessons on plant disease, population growth, and DNA extraction.	
Science Fair Judge (5x)	2012–2016
Curriculum Developer and Teacher, <i>Cedar Creek Ecosystem Science Reserve</i>	2015
Single day field research experience about plant diversity for middle school students.	

## Service and Leadership

Manuscript reviewer: <i>The American Naturalist</i> , <i>Biological Invasions</i> , <i>Ecology and Evolution</i> , <i>Ecology Letters</i> , <i>Ecological Monographs</i> , <i>Fungal Ecology</i> , <i>Journal of Animal Ecology</i> , <i>Journal of Applied Ecology</i> , <i>Journal of Ecology</i> , <i>Journal of Environmental Management</i> , <i>Land Degradation and Development</i> , <i>New Phytologist</i> , <i>Plant Ecology</i> , <i>Proceedings of the Royal Society B</i>	
Co-Organizer, R-Ladies Gainesville	2019–present
<i>Sessions led: book club discussion, Introduction to R, Docker and RStudio, Tidy Tuesday</i>	
Invasion Ecology Student Presentation Award Judge, Ecological Society of America	2018
Undergraduate Research Opportunities Program Committee, UMN	2016
Friday Noon Seminar Planning Committee, UMN Department of EEB	2013–2014, 2016
Sexual Harassment Complaint Liaison, UMN Department of EEB	2015–2016
Volunteer Coordinator, UMN TeachingSMART	2012–2014
Graduate Student President Committee, UMN Department of EEB	2012–2013
Travel Grant Committee, UMN Department of EEB	2012
Council of Graduate Students Representative, UMN Department of EEB	2011–2012
Executive Committee Student Representative, UMN IGERT	2011–2012