Julia Eckberg
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Education

PhD in Ecology and Evolutionary Biology, University of Michigan 2021-Present
Ann Arbor, Michigan
Advisor: Nathan Sanders

B. A. in Biology, Kenyon College, Gambier, Ohio 2017-2021
Minor in History

Awards and Fellowships

Institute for Global Change Biology Graduate Fellow 2023
University of Michigan Graduate Fellow 2022-2023
Robert Bowen Brown Jr. Award 2021
Kenyon College Merit Scholarship 2017-2021

Grants

Institute for Global Change Biology Graduate Research Fellowship ($7246.64)
Dr. Nancy Williams Walls Award for Field Research ($1975)
University of Michigan Biological Station Graduate Student Fellowship ($5824)
Ecology and Evolutionary Biology Conference Travel Award ($400)
William and Flora Hewlett Foundation Travel Award ($1150)
Dr. Nancy Williams Walls Award for Field Research ($1827)
University of Michigan Biological Station Graduate Student Fellowship ($3010)

Teaching Experience

Graduate Student Instructor – *General Ecology*, University of Michigan Winter 2023
Graduate Student Mentor – *Supervised Teaching*, University of Michigan Winter 2023
Graduate Student Instructor – *Introductory Biology Lab*, University of Michigan Fall 2022
Graduate Student Mentor – *Supervised Teaching*, University of Michigan Fall 2022
Graduate Student Instructor – *Introductory Biology Lab*, University of Michigan Winter 2022
Graduate Student Instructor – *Introductory Biology Lab*, University of Michigan Fall 2021

Research Experience

University of Michigan, Ecology and Evolutionary Biology Fall 2021-Present
PI: Dr. Nathan Sanders

- Investigating the effect of insect herbivory on plant community diversity and ecosystem function following dominant plant species loss
- Investigating the independent and interactive effects of precipitation and insect herbivory on plant community composition, functional diversity, and productivity

THREE-D Experiment Aurland, Norway 2022
PIs: Dr. Vigdis Vandvik, Dr. Aud Halbritter, and Dr. Brian Enquist

- Developed a data collection strategy in collaboration with researchers around the world to investigate the effects of warming, nitrogen addition, and grazing on plant functional traits in alpine ecosystems within the THREE-D experiment
- Meet monthly to analyze data collected and develop manuscripts following completion of field work in 2022

Kenyon College Summer 2021
PI: Dr. Andrew Kerkhoff

- Continued analyses of bryophyte biodiversity patterns of North and South America and wrote up results into a manuscript in collaboration with lab mates

Kenyon College Fall 2020-Spring 2021
PI: Dr. Jennifer McMahon

- Investigated the plasticity of cyanogenesis in *Sorghum bicolor* in response to environmental stress
- Exposed *S. bicolor* individuals to salt stress in a greenhouse experiment and quantified leaf cyanogen content using chemical analysis

Kenyon College 2019
PI: Dr. Andrew Kerkhoff

- Investigated the biodiversity patterns of North and South American bryophytes
- Utilized bryophyte occurrence data from the Botanical Information and Ecology Network to create species range maps and identify areas of high bryophyte alpha and beta diversity using R

Publications

1. **Eckberg, J.N**., Hubbard, A.K., Schwarz, E.T., Smith, E.T., Sanders, N.J. 2023. The dominant species *Solidago canadensis* structures multiple trophic levels in an old-field ecosystem. *Ecosphere* 14(1): e4393

Presentations

1. **Eckberg, J.N.,** & Sanders, N.J. (2023). The independent and interactive effects of summer precipitation and insect herbivory on plant community structure and biomass. Institute for Global Change Biology Symposium. Talk. 10/26/2023.
2. **Eckberg, J.N.,** & Sanders, N.J. (2023). The independent and interactive effects of summer precipitation and insect herbivory on plant community structure and biomass. University of Michigan Biological Station Student Research Symposium. Poster. 07/19/2023.
3. **Eckberg, J.N.,** & Sanders, N.J. (2023). The dominant species *Solidago canadensis* structures multiple trophic levels in an old-field ecosystem. Early Career Scientist Symposium. Poster. 03/31/2023.
4. **Eckberg, J.N.,** & Sanders, N.J. (2023). The role of dominant plant species in mediating plant-insect herbivore interactions. Ann Arbor Farm and Garden Association. Talk. 01/12/2023.
5. **Eckberg, J.N.**, & McMahon, J. (2021). Plasticity of *Sorghum bicolor* cyanogenic potential in the face of salt stress. Independent Research Symposium. Lightning Talk. 05/09/2021.
6. **Eckberg, J.N.,** O'Malley, J., Echeverría-Londoño, S., & Kerkhoff, A.J. (2019). Anomalous biodiversity patterns in bryophytes. Kenyon College Summer Scholar Poster Session. Poster. 10/21/2021.

Service and Outreach

ECBAL – Exploring Careers Outside of Academia (and Lunch) 2023

- Coordinate monthly workshops to connect with UM EEB alumni that have pursued careers outside of academia
- These events attract undergraduate students, graduate students, postdocs, and staff

ATHENAS – Aiming to Heighten Her Experience Near and Around Science 2017-2021

- Volunteered once a semester in program designed to engage elementary and middle school girls and gender minorities in STEM activities in a fun, outside of the classroom setting
- Demonstrated and explained a set of experiments to participants, provided assistance as they worked through the experiment in pairs, and participated in a “Meet the Scientist” forum where participants could ask volunteers about their experiences in STEM