

ZOEY WERBIN

Department of Biology, Boston University, Boston, MA
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EDUCATION

Boston University

September 2018 - August 2024

PhD in Biology, Certificate in Biogeoscience

Boston, MA

- Advisors: Jennifer Bhatnagar and Michael Dietze

Swarthmore College

September 2013 - May 2017

BA in Biology, Minor in Environmental Studies

Swarthmore, PA

RESEARCH EXPERIENCE

Boston University, Dept of Biology

Sept 2018 - Present

Graduate Research Assistant, PI: Jennifer Bhatnagar

Boston, MA

- Developing iterative spatial and temporal forecasts of soil microbial communities and ecosystem function, using Bayesian hierarchical modeling and genome-scale metabolic modeling
- Investigating the limits of predictability and sources of uncertainty in the soil microbiome

Swarthmore College, Dept of Mathematics and Statistics

Jun 2018 - Aug 2018

Project Scientist, PI: Steve Wang

Swarthmore, PA

- Used logistic regression and cluster analyses to demonstrate that age selectivity trends in modern extinctions are more similar to severe mass extinctions than to background extinctions.

Oak Ridge National Lab, DAAC for Biogeochemical Dynamics

Sep 2017 - May 2018

Post-Bachelor's Research Intern, Mentor: Dr. Alison Boyer.

Oak Ridge, TN

- Conducted quality assurance for NASA data, and developed R package for processing ICARTT data files
- Developed interactive data visualization tools using R Shiny

Florida State University, Dept of Earth, Ocean, and Atmospheric Science

Jun 2017 - Aug 2017

Research Assistant, PI: Olivia Mason

Tallahassee, FL

- Developed data processing and visualization workflows for shotgun metagenomics and metatranscriptomics to identify carbon-cycling pathways in ocean microbial communities

Swarthmore College, Dept of Biology

Jan 2016 - Aug 2016

Research Assistant, PI: Elizabeth Nichols

Swarthmore, PA

- Conducted dung beetle dissections at the University of Sao Paulo, Brazil
- Quantified infection intensity and conducted spatial analysis using R and QGIS

Academy of Natural Sciences of Drexel University

May 2015 - Aug 2015

Research Assistant, PI: Jason Downs

Swarthmore, PA

- Collected field material and recorded morphometric data of adult *Bothriolepis* (armored fish) specimens
- Used growth allometry and decision trees to diagnose the species of juvenile specimens

AWARDS AND FELLOWSHIPS

Graduate Research Fellowship

Fall 2021-Summer 2024

National Science Foundation

\$138,000 total

Graduate Student Travel Awards <i>Boston University Department of Biology</i>	Fall 2019, Spring 2020, Spring 2022, Spring 2023 \$200-\$1000
Biogeoscience Student Awards <i>Boston University Biogeoscience Program</i>	Spring 2019, Spring 2020, Fall 2021 \$290-\$500
Microbiome Fellowship <i>Boston University Microbiome Initiative</i>	Spring and Fall 2020 \$34,000
ESA+USSEE Annual Meeting Travel Award <i>Ecological Society of America (ESA)</i>	Spring 2019 \$500
Dean's Fellowship <i>Boston University Graduate School of Arts & Sciences</i>	Fall 2018 \$28,325
NSF Sedimentary Geology and Paleobiology Award #1760634 (co-author) <i>"RUI: Comparing age selectivity in modern extinctions and the fossil record."</i>	2018-2019 total budget: \$54,059
Professional Opportunities Fund Travel Grant <i>Swarthmore College, Provost's Office</i>	Fall 2016 \$807
Peter and Aleck Karis Fellowship in Environmental Studies <i>Swarthmore, PI: Elizabeth Nichols</i>	Summer 2016 \$4350

SERVICE, TEACHING AND OUTREACH

Peer Review

- Referee for Global Change Biology, Fungal Ecology, Science Advances, Scientific Reports, Journal of Ecology, Soil Biology and Biochemistry, mBio, mSystems, Journal of Applied Ecology.

Prospective Scholars Mentor Apr 2021 - Present
Boston University

Graduate Women in Science and Engineering (GWISE) Mentor September 2018 - Present
Boston University

Ecological Forecasting Summer Course July 2019 - July 2021
Boston University *Boston, MA*

Science Associate January 2015 - May 2016
Swarthmore College, Department of Biology

Intern June 2014 - August 2014
Florida Department of Environmental Protection

SKILLS

Languages R, Bash shell scripting, Python, LaTeX, MATLAB, basic HTML5/CSS
Software Git/Github, Circos, ArcMap, QGIS, JAGS, NIMBLE