
PROFESSIONAL PREPARATION

Ph.D Student*Yale School of the Environment*Fall 2023
New Haven, CT

- Advisors: Dr. Mark Bradford, Dr. Oswald J. Schmitz

Master's of Environmental Science*Yale School of the Environment*2023
New Haven, CT

- Focus: soil ecology
- Thesis Title: *The effects of ground beetles on nitrogen cycling in eastern temperate forests*
- Advisors: Dr. Oswald J. Schmitz, Dr. Marlyse C. Duguid
- Relevant Coursework: *Regression Modeling for Environmental Data, Forest Dynamics, Natural Science Research Methods, Data Exploration and Analysis, Soil Science* honors student

B.S. Environmental Science, Biology Minor*Wheaton College*Aug 2018—Dec 2020
Wheaton, IL

- GPA: 3.62/4.00 Dean's List, Cum Laude

Student, Sustainability Program*Arizona State University*Aug 2016—July 2018
Phoenix, AZ

- GPA 3.55/4.00 Dean's List
- Community Sustainability Solutions Program in Greece, Summer 2018

AWARDS & GRANTS (\$78,800 total)

● Dean's Scholarship	\$2,300
● NSF Graduate Research Fellowships Program 2023	Honorable Mention
● Environmental Professionals Organization of CT (EPOC)	\$2,500
● Rocky Mountain Biological Laboratory Travel Grant	\$2,800
● Yale Master's Student Travel Award	\$500
● Yale Summer Fellowship	\$1,500
● Yale Institute for Biospheric Studies	\$3,000
● David T. Schiff Fund for Wildlife, Habitat and Biodiversity Research	\$6,000
● Yale Forest Funds	\$5,000
● Big Y Academic Merit Scholarship	\$2,000
● NSF Graduate Research Fellowships Program 2021	Honorable Mention
● Yale School of the Environment Merit Scholarship	\$20,000
● REU Morton Arboretum Program Stipend	\$6,000
● Wheaton College Black Hills Science Station	\$3,500
● Wheaton College Presidential Leadership Award	\$20,000
● ASU Walton Foundation Sustainability Scholarship	\$6,000

PRESENTATIONS

Presentation: ESA Organized Oral Session, <i>Tree traits predict the diversity of soil organisms across 100 year monocultures</i>	Aug 2022
Presentation: <i>Environmental Science Careers for NSLC youth at Yale</i>	July 2022
Presentation: <i>Environmental Science Cafe for New Haven high schools</i>	Apr 2022
Presentation: <i>CT Entomological Society</i>	Mar 2022
Presentation: ESA Ecology Society of America <i>Poster Presentation</i>	Aug 2021
Presentation: Wheaton College Talk <i>Networking for Science Careers</i>	Aug 2021
Presentation: Morton Arboretum Science Symposium <i>Effects of forest type on ground beetle density and diversity</i>	Aug 2020
Panelist: <i>Environmental Science Careers at Wheaton College</i>	Dec 2020
Presentation: <i>Idea Night: Venture Pitch Competition</i>	Oct 2019

PUBLICATIONS

Publication: <i>Evergreen abundance drives ground beetle diversity and density in eastern temperate forests</i>	<i>In Revision</i>
Publication: <i>Tree traits predict the abundance and diversity of soil organisms across century-old monocultures</i>	<i>In Preparation</i>

TEACHING

Teaching Fellow

Sept 2021—Present

Yale College

- Spring 2023 Yale Analytical and Stable Isotope Center, TF
- Spring 2023 EE&B 125L History of Life
- Fall 2022 EVST 234L Field Environment and Sustainability
- Spring 2022 E&EB 223L Diversity of Life, instructed 66 students in two lab sections
- Fall 2021 EVST 234L Field Environment and Sustainability. Led discussion groups and field exercises, drove the shuttle, and provided feedback on lab reports

Lab Teaching Assistant

Aug 2019—May 2020

Wheaton College

Wheaton, IL

- Exploring the Dynamic Earth and Environment Lab. Assisted lab sections, graded labs, led study sessions, and assisted field trips to Wheaton's Wastewater Treatment facility. Developed communication strategies (2 semesters)

Teaching Assistant

Aug 2015—Dec 2015

Boundless Permaculture, LLC.

Kailua-Kona, HI

- Instructed participants in Permaculture Design technical skills, including planning, cost analysis, and implementation resulting in 20 certified Permaculture Designers on the Big Island of Hawaii

MENTORING EXPERIENCE

Undergraduate

- M. Torres (Yale University)
- L. Flores* (Elmhurst University)

**peer mentor*

RESEARCH EXPERIENCE

Master's Thesis

Yale School of the Environment

Aug 2021—Present

- Developed a research proposal and fundraised \$17,000 in grants to conduct research on soil food webs in eastern temperate forests. Designed and conducted two experiments at Yale Myers Forest to answer my research questions: *How do ground beetles contribute to nitrogen cycling in eastern temperate forests?*

Research Education Extension Fellow

Jan 2021—Aug 2022

Morton Arboretum

Lisle, IL

- Summer of 2021 ran an experiment at the Morton Arboretum in 18 century old mono-stand plots to assess soil macroinvertebrate communities by tree type and soil properties. Presented research at Ecology Society of America and prepared a manuscript for publication *Tree traits predict the abundance and diversity of soil organisms across century-old monocultures*
- Generated hypotheses & leveraged datasets in R software from National Ecological Observatory Network's data on ground beetles to create a new model for beetle community composition by forest type & prepared a manuscript for publication *Evergreen abundance drives ground beetle diversity and density in eastern temperate forests*

NSF Research Education for Undergraduates (REU)

June 2020—Aug 2020

Morton Arboretum

Lisle, IL & Remote

- NSF Funded research with the Soil Ecology Lab at the Morton Arboretum in Lisle, Illinois. Adapted to a virtual project that explored differences in forest types and inorganic nitrogen effects on ground beetle density and diversity. Utilized the National Ecological Observatory Network's ground beetle data in R. Designed and ran an analogous experiment on my family's small farm in the PNW. Engaged in the scientific community. Developed an R-based project, research questions, experimental design, ground beetle collection, ground beetle processing, and presented research Mentored by Dr. Meghan Midgley and Dr. Robert Buchkowski

Student Researcher

May 2019—July 2019

Wheaton College Science Station

Black Hills, SD

- Red Wing Blackbird study with Dr. Kenneth Peterson from Bethel College collected, analyzed, and interpreted data on the behavior of Red Wing Blackbirds using Excel

FIELD EXPERIENCE

Field Course

May 2019—July 2019

Wheaton College Science Station

Black Hills, SD

- Collected insect and plant samples throughout the Black Hills region and neighboring areas. Measured ecological parameters using water sampling techniques, counting species diversity, bird and wildlife identification with Dr. Kristen Page, Dr.

Raymond Lewis from Wheaton College, Dr. Kenneth Peterson from Bethel College, and Dr. Kirk Larson from Luther College

- Biology 242: Botany and Zoology
- Biology 243: Ecology

Field Course & Research

April 2018—June 2018

Student Arizona State University: Community Sustainability in Greece

Greece

- Synthesized qualitative research with Dr. Jane Parmentier and Professor Stratis Giannakouros on the impacts of the economy and urbanization on the rural communities on the Mani Peninsula in Greece and Athens, Greece

PROFESSIONAL DEVELOPMENT

Specialized Research Assistant

Oct 2021—Aug 2022

Schmitz Lab

New Haven, CT

- Worked in a team of four, conducted literature reviews for models, provided expertise for soil analysis including soil CN Isotope analyzer, soil water holding capacity, soil pH, and bulk density

Regenerative Agriculture Intern

Oct 2021—Aug 2022

Yale Center for Business and the Environment

New Haven, CT

- Develop a soil policy recommendation for the state of Connecticut, demonstrated leadership by organizing a team, meeting with stakeholders, and creating a literature review

Sustainability Consulting & Permaculture Design

Aug 2014—Present

JRL Creative (self)

Midwest, Pacific Islands

- Worked with Boundless Permaculture LLC to develop a 100+ page Permaculture Design to implement sustainable food systems for Boar Coffee in Ka'u, Hawai'i. Managed 5-acre Permaculture Garden & 25 volunteers to provide herbs for 3 local restaurants in Kona, Hawai'i

Resident Assistant

May 2020—Present

Wheaton College

Wheaton, IL

- Executed sustainability initiatives on the floor. Problem-solved floor events to meet Covid-Safe regulations resulting in safe & enjoyable weekly & monthly events. Maintaining leadership of 26 diverse residents on the floor resulting in effective care & conflict resolution

Student

Jan 2014—June 2014

Permaculture Design Course

Kailua-Kona, HI

- Learned sustainable agriculture practices such as biochar manufacturing, soil construction, landscape design, management, soil nutrient dynamics, and systems thinking

Student

Aug 2019

Praxis Academy

Los Angeles, CA

- Won a \$1000 tuition scholarship for Praxis Academy 2019 as a prize for a venture pitch event. Led our club to a one-week conference to equip leaders for societal change through entrepreneurship

PROFESSIONAL SERVICES & OUTREACH

Vice President, Motive: Redemptive Entrepreneurship Club

Aug 2019—May 2020

Wheaton College

Wheaton, IL

- Led a team of 10 to create a student venture incubator with students on social entrepreneurship. Facilitated guest speaker & author Andy Crouch & organized a campus-wide event with 100+ attendees

Vice President, A Rocha: Environmental Club

Aug 2019—May 2020

Wheaton College

Wheaton, IL

- Provided leadership and vision for our team of six through strategic communication, delegating tasks resulting in student body engagement in sustainability initiatives. Directed sustainability engagements at Wheaton College to double cafeteria plant-based options & install vermicomposting for 50+ students to reduce the school's carbon footprint.

Upper-Class Leader, Women's Leadership Groups

Aug 2018—May 2019

Wheaton College

Wheaton, IL

- Led and supported 6 women through weekly events resulting in strong emotional and academic success as a group

OTHER

Employee, Barista

Aug 2016—May 2019

Starbucks

Kailua, Kona HI & Wheaton, IL

- Worked 30+ hours a week in Kona, HI & Wheaton, IL while completing my education. Barista Trainer, Certified Coffee Master, Sustainability Advocate and Greenery Manager, Regional Barista Competition Champion. Gained customer service skills, dependability, efficiency, and high capacity for multi-tasking. Developed a more efficient system for weekly ordering and store retail and product organization to ensure timeliness

Art Production Assistant*Feature Film: Running for Grace*Nov 2017
Big Island, HI

- Jo the Medicine Runner by David Cunningham, starring Jim Caviezel and Matt Dillon. Crafted sets based on designer's instructions by placing props, background structures, and maximizing budget to assist in reaching designer's vision

Consultant Project Coordinator*Documentary*May 2017
Europe

- Traveled to Germany and Prague for a documentary, coordinated 100+ interviews, managed travel coordination in excel, photographed and videoed interviews and people for the documentary

Key Set Production Assistant*TV Series*May—Aug 2015
Big Island, HI

- Nickelodeon's Paradise Run Season 1 with Daniella Monet. Assistant to the star host of the show, communicated day-to-day instructions between Monet and assistant director to ensure timeliness and understanding

Intern to Film Producer*GVS Honua Studios*Aug 2014—March 2015
Kailua-Kona, Hawai'i

- Devised fundraising materials for a giant screen film venture, *Ring of Fire Films*, using Adobe Creative Suite; provided a clear, visually appealing pitch deck and handouts. Represented *Ring of Fire Films* with a team at the Giant Screen Cinema Association conference in Los Angeles, CA producing new networks and funder connections

INTERESTS & SYSTEMS

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| <ul style="list-style-type: none"> • Statistical Analysis: Advanced RStudio, JMP, ArcGIS, Aloha Hazard Modeling & Data Visualization • Microsoft Office 365: Excel, Word, & PowerPoint | <ul style="list-style-type: none"> • Environmental & Biology Technical Skills <ul style="list-style-type: none"> ◦ Air & Water Quality Instruments ◦ Ecology Research & Grant Writing • Permaculture Design & Plant and Insect ID |
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