

Julie Ann Fowler

Atlanta, GA and Lincoln, NE

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EDUCATION

UNIVERSITY OF NEBRASKA-LINCOLN, School of Natural Resources
Master of Science in Natural Resource Sciences

Lincoln, Nebraska

Anticipated Graduation May 2020

- NSF National Research Traineeship Program in Resilience of Agro-Ecosystems
- Applied Ecology Specialization

EMORY UNIVERSITY, College of Arts and Sciences
Bachelor of Science in Environmental Sciences

Atlanta, Georgia

May 2018

- Cumulative GPA: 3.79/4.00
- Dean's List (Fall 2015, Spring 2016)
- Order of Omega Honor Society, 2018 Graduating Woman of Excellence

PUBLICATIONS

[1] Bell, K.L., Fowler, J., Burgess, K.S., Dobbs, E.K., Gruenewald, D., Lawley, B., Morozumi, C., & Brosi, B.J. 2017. Applying Pollen DNA Metabarcoding to the Study of Plant–Pollinator Interactions. *Applications in Plant Sciences*, 5(6): e1600124.

PRESENTATIONS

[1] Fowler, J., Bell, K.L., Burgess, K.S., Dobbs, E.K., Gruenewald, D., Lawley, B., Morozumi, C., and Brosi, B.J. (2017, November). Applying Pollen DNA Metabarcoding to the Study of Plant–Pollinator Interactions. Poster presented at the International Barcode of Life (iBOL) conference in Kruger National Park, South Africa. Abstract published in *Genome*, 60(11), 934.

- *Metabarcoding and Metagenomics* Award for Best Poster Presentation

[2] Fowler, J., Bell, K.L., Lawley, B., and Berry, B.J. (2016, August). Utilizing Pollen DNA Metabarcoding for Reconstructing Pollinator Networks in Forests Managed for Biofuel Production. Poster presented at the Summer Undergraduate Research Experience (SURE) poster symposium in Atlanta, GA, USA.

RELATED EXPERIENCE

RIVERS LABORATORY, Oregon State University

Corvallis, Oregon

Research Assistant

May 2018 – August 2018

- Worked with the Rivers Forest Animal Ecology laboratory under Dr. Sara Galbraith on a study assessing how native pollinator communities within managed forests in the Coast Range mountains are influenced by stand age and management intensity
- Collected pollinators through netting, blue vane, and pan trapping as well as conducting floral composition surveys
- Gained experience with data collection and recording, navigation of forestry roads, identification of local Oregon flora to species, and hymenoptera identification to species using dichotomous keys

BROSI LABORATORY, Emory University

Atlanta, Georgia

Undergraduate Research Assistant

June 2015 – August 2016, January 2018 – May 2018

- Contributed to a DNA metabarcoding study reconstructing plant-pollinator networks with applications in forensic palynology
- Participated in both the Army Educational Outreach Program's Undergraduate Research Apprenticeship Program (URAP) and Emory University's Summer Undergraduate Research Experience (SURE) program
- Performed DNA isolations and PCR amplifications to prepare samples for sequencing and conducted field work collecting pollen samples in Atlanta, including at the Atlanta Botanical Gardens and Lullwater Preserve

PONISIO LABORATORY, University of California Riverside

Riverside, California

Field Technician and Junior Specialist

June – August 2017

- Collected pollinators for network interaction and phylogeny studies in the Madrean Sky Islands of Arizona and New Mexico
- Caught pollinators using nets, pan traps, trap nests, and vane traps in the high elevation meadows of this ecosystem
- Camped for multi-day periods, carried heavy equipment and packs in high elevations to our sites
- Processed samples after net and pan-trap sampling through pinning and data entry

ORGANIZATION FOR TROPICAL STUDIES, Duke University

Kruger National Park, South Africa

Semester Abroad Student

August – November 2016

- Devised group research projects involving bird species richness and diversity and *Turbo sarmaticus* population dynamics
- Contributed to projects involving camera traps, audio recording for elephant/bat interactions, and microchipping frogs
- Acted as an alumni representative at Emory, meeting with prospective students and distributing informational materials

EMORY UNIVERSITY HERBARIUM, Emory University**Atlanta, Georgia****Volunteer***January – May 2016*

- Created herbarium vouchers from samples collected under Dr. Karen Bell as well as repaired and preserved older specimens
- Imaged vouchers and performed database entries on these new additions to the collection
- Engaged in a directed reading on basic botany and maintained a clean and orderly storage facility

MENTORSHIP AND TEACHING EXPERIENCE

PLANTINGSCIENCE MASTER PLANT SCIENCE TEAM, Ecological Society of America**Lincoln, Nebraska****Mentor***September 2018 – Present*

- Serving as an online resource and assistant in teaching to classes of middle or high school science students
- Teaching basic plant science and botanical principles, classroom pairing to begin in mid-September 2018

OFFICE OF INTERNATIONAL AND SUMMER PROGRAMS, Emory University**Atlanta, Georgia****Peer Advisor***August 2017 – May 2018*

- Provided mentoring to students for study abroad, hosted informational talks and panels, and wrote promotional materials
- Assisted in day-to-day office operations, managed the front desk, fielded calls, and assisted visitors
- Planned and hosted a student information session and an alumnae panel on OTS and my time in South Africa

DELTA PHI EPSILON SORORITY, Emory University**Atlanta, Georgia****Sustainability Coordinator***February 2017 – February 2018*

- Provided informational materials and a weekly sustainability tip to all sisters to encourage sustainable habits and living
- Kept over one hundred sisters up-to-date on all environmental and sustainability events and educational opportunities on campus
- Became a Zero Waste Ambassador to better understand Emory's waste system and more fully educate sisters

DEPARTMENT OF HUMAN HEALTH, Emory University**Atlanta, Georgia****Teaching Assistant and Peer Health Partner***August 2015 – December 2015*

- Taught Health 100 to a class of over twenty students, meeting once a week to review lessons on wellbeing in college
- Devised group learning activities to engage students in physical, mental, and social health topics
- Encouraged students to take up goal-setting using both short- and long-term realistic goals as a method of self improvement

ADDITIONAL EXPERIENCE AND SKILLS

Involvement: Modern and Ancient Tropical Environments Geological Field Course (San Salvador, The Bahamas), Sustainability Advisory Council, Zero Waste Ambassador, Sorority and Fraternity Pride Alliance, Recruitment Coordinator, Michael C. Carlos Museum Bookshop Attendant

Skills: DNA extraction, PCR amplification, DNA purification, agarose gel electrophoresis, fluorescence assays, pollinator capture, insect pinning, pollinator identification, microscopy, bird point counts, field botany, navigation using Avenza, driving large field vehicles on difficult terrain (Ford F250 Super Duty), CB radio usage, strong writing and public speaking skills, experience with fundraising, social media, and promotional media creation, CPR and First Aid Certified

Grants: NSF National Research Traineeship Assistantship, Lester Conference Travel Grant, URAP Research Grant, SURE Housing Grant, National Merit Finalist, Zell Miller Scholarship, Georgia Tuition Grant