

Emma C. Herndon

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EDUCATION

Augusta University

Augusta, GA

Bachelor of Science in Ecology

May 2025

- Cum Laude graduate (3.56 gpa)
- Active Member of Tri Beta Honors Society
- Related Coursework: Zoology, Botany, Genetics, Geology, Statistics, Marine Pollution, Animal Behavior, Ornithology, Grant writing & Organic chemistry I

RESEARCH

Department of Biology, Georgia Southern University

Statesboro, GA

NSF- RaMP Research Fellow- *Dr. Risa Cohen*

2025-2026

Increasing professional development skills while receiving opportunities to participate in diverse research with year-round mentorship. Developing and executing a novel research project for eventual presentation at relevant scientific conferences.

Department of Biological Sciences, Augusta University

Augusta, GA

Student Lead Researcher- *Dr. Stacy Bennetts*

Spring 2025

Worked on collaborative project with Augusta University, Georgia Southern and Francis Marion University to assess the ecological impacts of cut closures on the Satilla River. Deployed and retrieved gill and trawl nets while also properly handling wildlife caught. Identified, measured, and catalogued fish species for quantitative and qualitative data on biodiversity.

Undergraduate Researcher- *Dr. Jessica Reichmuth*

2023-2025

Assessed the human impact on ghost crab populations of three different sites with different levels of urbanization by collecting male ghost crabs (*Ocypode quadrata*). Dissected each crab, identified, and obtained their stomach contents then weighed and determined stomach fullness to determine if fit for analysis. Stomach content then analyzed by looking for microfibers.

Student Lead Technician- *Dr. Jessica Reichmuth*

2022-Present

Monitored fish biodiversity on Saint Catherine's Island, Georgia by assisting professor and research team along four beach sites. Utilized two different types of beach seine nets: 100 ft monofilament and 60 ft cotton mesh bag. Identified, measured, and catalogued fish species for quantitative and qualitative data on biodiversity.

Undergraduate Researcher- Dr. Jessica Reichmuth

Fall 2023

Assessed if ocean acidification increases copper toxicity in a species of marsh periwinkle by designing and conducting a study on ocean acidification paired with heavy metal toxicity on a local snail species. Observed and recorded any behavioral changes, as well as weighed snails before and after exposure to determine shell or soft body dissolution. Utilized an ANOVA test to analyze the significance of the results.

Department of Physics and Biophysics, Augusta University**Paraprofessional Physics Intern - Dr. Andy Hauger**

2024-2025

Worked as part of a team that designed, engineered and tested low cost, low power, open-source water quality sensors. Applied CAD software and 3D printed custom housing for sensors as well as programmed Arduino-type microcontrollers to control five water quality sensors, and a GPS module to store data to an SD card.

VOLUNTEER EXPERIENCE

Augusta University Department of Biological Sciences**Augusta, GA***Student Ambassador on Preview Day*

2022-2025

Answered questions for prospective students and parents and explained what classes and opportunities Augusta University offers. Led a tour of the Augusta University Science Hall and College of Science and Mathematics building.

Biology Club annual plant sale

2024-2025

Explained the difference in care between plants. Helped set up and take apart tables and signs. Dealt with the finances from the sale.

Augusta University “In the Wild” Podcast*Eco Explorer at Phinizy Nature Park*

Summer 2024

Discussed ecology related opportunities offered at Augusta University. [Watch here!](#)

Phinizy Nature Park**Augusta, GA***Volunteer at Earth Day Festival*

Spring 2023

Assisted kids in identifying and understanding macroinvertebrate species found in water samples

WORK EXPERIENCE

Augusta University Department of Biological Sciences*Aquarium Technician*

2022- 2025

Responsible for monitoring water quality. Performed maintenance on exhibit equipment. Monitored and fed animals. Completed necessary administration work.

Phinizy Nature Park*Water Quality Intern*

Spring 2023

Collected water samples from multiple sites. Cataloged specific measurements of data for grant research. Performed microbiological procedures to test for waste contamination. Utilized sonde at multiple freshwater sites.

TEACHING EXPERIENCE*Zoology Teacher's Assistant*

2023- 2025

Prepared and set up specific specimens for weekly lab. Identified and explained important structures of animals. Helped supervise students during lab time and lab practical. Set up lab practicals using specific animals.

Augusta University Academic Success Center*Peer Educator /Peer coach*

2021- 2024

Provided tutoring for multiple courses to help students understand concepts and processes. Listened and provided feedback to students on study habits. Led workshops and study sessions for students on specific courses.

AFFILIATIONS**Augusta University Biology Club, Vice President**

2023-2024

POPUPS NSF Scholarship program, member

2023- 2025

Augusta University Biology Club, President

2024-2025

Southeastern Estuarine Research Society, member

2024- present

Coastal & Estuarine Research Federation, member

2025-present

AWARDS & RECOGNITION

Dean's List	2021-2025
Hope scholarship, recipient	2021- 2025
Cameron-Wylds Scholarship, recipient	2023-2024
Biology Department Travel Grant, recipient	Spring 2024 & 2025
SEERS Travel Award, recipient	Spring 2025
Emil K. Urban Research Award, recipient	2024- 2025

TECHNICAL SKILLS

Field

Water quality tests kits, Seine net fishing, Water quality sondes, Gill net fishing, Otter trawling, ATV driving, Being on boats, Collecting data and remote sensing equipment in rough terrain, lifting heavy equipment

Data Analysis

Microsoft suite, Google suite, R studio,

Lab

Introductory lab equipment (drying ovens, compound microscope, dissecting microscope), Acid washing, preparing chemical solutions

PRESENTATIONS

Herndon, E., Leavins, M., Makowski, V., & Wilcher, A. (2024, August 16). *Remote Water Quality Monitoring*. [Oral presentation]. Augusta Utilities 2024 End of Summer Research Presentations, Augusta, GA, United States.

Herndon, E., & Bennetts, S. (2025, April 6). *Looking for Success: Monitoring Multi-Level Restoration of Noyes Cut*. [Poster session]. AU's URFA 2025 Conference, Augusta, GA, United States.

Herndon, E., & Reichmuth, J. (2025, March 7). *The Ghost of Plastic's Past... and its Future: A preliminary analysis of microplastics on a low impact site using ghost crabs as a bioindicator*. [Poster session]. SEERS 2025 conference, Fort Peirce, FL, United States. AAA S-STEM NSF annual 2024 Conference, Chicago, IL, United States

Cooke, W., Herndon, E., Leavins, M., Makowski, V., Wilcher, A., Byne, W., Flite, O., & Hauger, A. (2025, April 8). *DOP-TC: A Low-Cost Water Quality Monitoring System*. [Oral presentation]. AU's URFA 2025 Conference, Augusta, GA, United States.

Herndon, E., & Reichmuth, J. (2025, March 7). *Cu Late Snail!... Does Ocean Acidification make a local Mollusks Species sensitive to Cu?* [Poster session]. SEERS 2025 conference, Fort Peirce, FL, United States.