

Grace Jackson

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Education

University of Dayton

GPA CUM 3.689

Expected Graduation *May 2023*

Dayton, OH

Biology, B.S.

Minor: Sustainability, Energy, and the Environment

Relevant Coursework

Past: · Biology of Rivers and Lakes · Advanced Marine Environmental Science · Environmental Ecology · Intro to Sustainability, Energy, and the Environment · Entomology · Organic Chemistry I & II · Genetics · Calculus I · Physics I · Literature and the Environment · Leadership in Building Communities

Current: Analysis of Biological Data · Applied Geographical Information Systems (GIS) · Neurobiology · Microbiology

Research and Lab Experience

Dr. Chelse Prather's Insect Ecology Lab at the University of Dayton

January 2020- Present

Research Assistant

Skills:

- Insect identification to order, Soil Gravimetric Analysis (GMV), water quality sampling, D-frame dip net sampling, sweep-netting, lab organization, data entry, experimental design, scientific communication
- Independent research project (ongoing since August 2021): I am currently collecting biotic and abiotic data from nine green roofs and ground level sites across three cities in Southwestern Ohio. I hope to better quantify the use of green roofs as an urban habitat for arthropods.

National Science Foundation Research Experience for Undergrads

June 2021-August 2021

Rutgers Research Internships in Ocean Sciences (RIOS)

Intern under mentor Dr. David Bushek

Skills:

- **Ecology:** scallop and oyster antiseptic shucking and processing (dissection, weight, dimensions, mortality assessment) · horseshoe crab egg collection · Ray's Fluid Thiogallate Medium tissue analysis
- **Microbiology:** antiseptic techniques (sterile hood, sterile filtered seawater) · protozoa culturing (making of growth medium, use of antibiotics) · microscopy (compound, inverted, dissecting) · coulter counter · hemacytometer · FlowCam[®] · microfiltration for field larvae sampling
- **Oceanography:** YSI water quality probe · rudimentary understanding of the behavior of brackish waters and estuarine salinity gradients · dilutions
- **Data analysis:** introduction to R programming and ggplot2 · Excel statistics · HOBO data loggers

Skills Through College Courses:

- **Biology:** Spectrophotometer · Gel Electrophoresis · Lethal dose and concentration calculations · Aquatic insects of North America identification to order · Micro Pipette
- **Advanced Marine Environmental Science:** Removal of invasive plant species, especially limu (seaweed) · Kilo (Hawaiian observational skills) · Environmental temperature logging of coral reefs ·

Accolades

Keck Environmental Fellowship	<i>Spring 2022</i>
<ul style="list-style-type: none">To support research focused on improving understanding of the Earth system and how it both shapes and is shaped by the activities of human beings- University of Dayton	
Dean's list	<i>Every Semester Since Fall of 2020</i>
River Steward Scholarship	<i>Spring 2020</i>
Honors Art Exhibition, University of Dayton	<i>Fall 2020</i>
<ul style="list-style-type: none">Piece title: <i>The Superbug That Will Get Us All</i>, Watercolor and ink	
Girl Scout Gold Award	<i>May 2019</i>
<ul style="list-style-type: none">Project title: <i>The Gems of STEMM</i>, equivalent to Eagle in Boy Scouts	
Ohio War Orphans Scholarship	<i>Spring 2019</i>
American Legion Legacy Scholarship	<i>Spring 2019</i>
Montgomery County Solid Waste District School Waste Reduction and Education Grant	<i>Fall 2019</i>
ALDI's Smart Kids Grant	<i>Fall 2019</i>

Affiliations

Waikiki Aquarium Volunteer	<i>January 2022-May 2022</i>
<ul style="list-style-type: none">Trained "Edge of the Reef" and "Hunters of the Reef" exhibit educator"Aquarium Activator" position involving hands-on, craft-based learning for young children	
Surfrider Foundation, Chaminade University of Honolulu Chapter	<i>January 2022-May 2022</i>
<ul style="list-style-type: none">Mission: "dedicated to the protection and enjoyment of the world's ocean, waves and beaches, for all people, through a powerful activist network."-Surfrider official webpage.Activities include beach cleanups, public education, and working with other local conservation initiatives	
UD BIO dept. Justice, Diversity, Equity, and Inclusion Committee	<i>August 2020-Present</i>
<ul style="list-style-type: none">Mission Statement: "To implement a number of short and long-term plans for increasing equity and inclusion in our classrooms, in our research laboratories, and within the broader UD community."	
River Stewards of the Fitz Center for Leadership in Community '23 Cohort	<i>March 2020- Present</i>
<ul style="list-style-type: none">Three-year interdisciplinary program which fosters civic engagement of undergraduate students through weekly mini-courses, services to the community, and a senior capstone project	
Hanley Sustainability Institute, Sustainability Activation Program Volunteer	<i>November 2020-May 2021</i>
<ul style="list-style-type: none">Interviewed position, facilitated "Conscious Living Chats" with UD residents about sustainability and the climate crisis	

Conferences and Presentations

Ocean Sciences Meeting, February 27th- March 4th, 2022, "Fevers Aren't Cool: But This Possible New Oyster Disease Therapy Is", Virtual	
<ul style="list-style-type: none">Participation funded by the Association for the Sciences of Limnology and Oceanography Multicultural Program	
Lunch and Learn, February 2nd, 2022, "Green Roofs, the Canopy of the City?", Virtual for University of Dayton Faculty as a part of a Wellness program	
<ul style="list-style-type: none">Discussed my upcoming independent project with any faculty at UD who wished to attend, which allowed me to practice scientific communication with a broad audience	
National Girl Scout STEM Festival, April 2021, "Highest Awards Booth", Virtual	

- Discussed how to set attainable goals and strategies for completing a long-term project
- Oscar Romero Award ceremony and symposium, March 2021**, “A Confluence of Health and Science: Transformative Communities in Solidarity for Environmental Justice”, Virtual through the University of Dayton
- Discussed water justice initiatives within the River Stewards program
- Women in Business Network Leadership Conference, September 2019**, “We need women in STEM”, Sinclair Community College
- Discussed the importance of promoting science education among young girls

Other Employment

Supplemental Instructor: Introduction to Philosophy *August 2020-May 2021*

- Created and facilitated supplemental learning tools and opportunities through the University of Dayton Office of Learning Resources

Lifeguard and Swim Lessons Instructor, multiple facilities *August 2017- May 2020*

- Relied upon my skills in cleanliness, keen observation, critical thinking, and effective customer service

Tropical Smoothie Cafe Team Member *June 2020-May 2021*

- Assisted with the training of new members, prioritized cleanliness and the attention to detail required to maintain a high standard of food safety

References

Dr. Chelse Prather · Associate Professor, University of Dayton, Principal Investigator of Insect Ecology Lab
Email: cprather1@udayton.edu · Phone: (937) 229-2716

Dr. David Bushek · Professor of Marine and Coastal Sciences, director, Haskin Shellfish Research Laboratory
Email: bushek@hsrl.rutgers.edu · Phone: (856) 785-0074

Leslie King · Director of the Rivers Institute at the University of Dayton
Email: lking1@udayton.edu · Phone: 937-751-4307

