

# LUCY ROUSSA

Raleigh, NC | lroussa@ncsu.edu

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## EDUCATION

**North Carolina State University**, GPA 3.67

**Anticipated Degree:** Marine, Earth, and Atmospheric Sciences, PhD

**Relevant Coursework:** Biological Oceanography, Chemical Oceanography, Marine/Coastal Deoxygenation

Raleigh, NC  
September 2022-Current

**Eastern Washington University**, GPA 3.47

**Degree:** Biology & Environmental Science, Bachelor of Science

**Relevant Coursework:** Invertebrate Zoology, Principles of GIS, Biological Statistics, Environmental Policy, Microbial Ecology, Genetics

Spokane, WA  
September 2019-March 2022

**Roane State Community College**, GPA 3.69

**Degree:** General Science, Associate of Science

**Education Abroad:** Bonaire, island municipality of the Netherlands, June 2018 (Short-Term, affiliated with classwork)

**Relevant Coursework:** Tropical Biology, Coastal Marine Ecology, SCUBA

Oak Ridge, TN  
September 2016-March 2018

**Oregon Institute of Marine Biology**, GPA 4.0

**Relevant Coursework:** Deep Sea Biology

Remote Learning Format  
June 2020-July 2020

## RESEARCH EXPERIENCE

### **PhD Candidate**

- Research funded through National Oceanographic and Atmospheric Administration (NOAA) Ocean Acidification Program (OAP).
- Field work on NOAA's *R/V Ronald H. Brown*.
- Reviewing literature pertaining to climate drivers, plankton ecology, functional adaptations to anthropogenic change.

September 2022-Current

### **McNair Research Fellow**

- Reviewed literature pertaining to freshwater sponges, DNA analysis, and sampling methods in freshwater streams.
- Field sampling including sterile removal of sponges, collecting water for nutrient samples, use of a turbidity meter, DO meter, ORP meter, flow meter, and pH meter.
- Coordinating site selection for access to DNR and public land use.

September 2021-Current

### **University of Washington CICOES Intern**

- Organized hundreds of images into concise folder format.
- Analyzed arial photographs of Puget Sound using ImageJ and Google Earth.
- Improved and re-wrote an existing protocol for image analysis based on updated MATLAB code.
- Collaborated with DOE employees and learned how to analyze arial images using ImageJ, MATLAB, and Google Earth.

June 2021-August 2021

### **TLES Research Fellow**

- Reviewed literature pertaining to eutrophication, anthropogenic effects on freshwater systems, and algal sampling in freshwater.

July 2020 – September 2020

- Investigated the relationship between nutrient levels and algal abundance within a wetland habitat.
- Researched and implemented methods for fieldwork and laboratory work.
- Examined algal samples using microscopy and fluorometry for chlorophyll abundance measurements.
- Presented findings orally at a national research conference and a university research symposium.

### **SCIENCE EDUCATION EXPERIENCE**

#### **Teaching Assistant**

August 2023-Current

Lecturer and grader for Introduction to Geosciences (MEA100)  
Grader for Oceanography Lab (MEA210)

#### **SciRen Triangle Networking Event Volunteer**

September 2024

Developed a K-12 friendly lesson plan about ocean acidification to marine life.  
Lesson outlined North Carolina education standards and included an age-adaptable presentation and experiment.

#### **NC Museum of Natural Sciences Volunteer**

Summer/Fall 2024

Tabled a booth exhibiting sucker fish lip adaptations on two public museum event days.  
Tabled a booth at BugFest exhibiting crawfish with an interactive craft.

#### **Letters to a Prescientist Volunteer**

Fall 2024/Spring 2025

Pen-pal program where researchers are paired with a middle school student who is interested in STEM professions. Most students attend inner-city public schools.

#### **EWU Scholarship Review Committee**

March 2021-May 2021

Assessed scholarship applications based on financial need and academic achievement.

### **FIELD WORK**

**2022** *R/V Ronald H. Brown 10/1-10/21 (three-week cruise), East Coast Ocean Acidification – RI to FL*

**2021** 9/9-10/3 (18, 1-day trips), Sampling streams for freshwater sponges – eastern Washington

**2021** *R/V Rachel Carson, 8/22-8/27 (6 day cruise), Aurelia labiata and zooplankton survey – Puget Sound, WA*

**2020** 7/25-9/12 (12, 1-day trips), Sampling wetlands for algae and nutrients – Cheney, WA

**2020** 9/20-9/24 (4, 1-day trips), Collecting freshwater invertebrates for graduate research – Harrington, WA

### **SKILLS**

Field: Collecting environmental parameter data using a YSI, collection using sterile technique, zooplankton sieving and collection, collection using ring nets, biological sample collection at sea

Laboratory: Chlorophyll Analysis, Light Microscopy, Fluorometry, PCR, Nutrient Analysis, DNA techniques

Computer: Microsoft Office, Google Earth Pro, OS (Windows), RStudio (intermediate), ArcGIS (basic)

### **HONORS AND AWARDS**

Provost's Fellowship-North Carolina State University

September 2022-August 2023

Leon & Emma Solomon Memorial Scholarship-AWIS Seattle Chapter

May 2021

Biology Memorial Scholarship-Eastern Washington University

June 2021

### **PRESENTATIONS**

Roussa, L. (2022) "Freshwater Sponges in Eastern Washington: Environmental Constraints, Species Composition, and Associated Photobionts" Joint Aquatic Sciences Meeting. Grand Rapids, MI.

Roussa, L. (2021) "Measuring From the Sky: Methods to Quantify Moon Jellyfish (*Aurelia labiata*) Aggregations Using Aerial Photographs." CICOES Research Poster Session, University of Washington, Seattle, WA.

Roussa, L. (2020) "Freshwater Algae of Turnbull National Wildlife Refuge." National Conference on Undergraduate Research. (presented virtually).

Roussa, L. (2021) "Freshwater Sponges in Eastern Washington: Environmental Constraints, Species Composition, and Associated Photobionts." Murdock College Science Research Conference. Vancouver, WA.