

STEPHANIE CADDELL

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ABOUT ME

My work focuses on the intersection of fisheries management, coastal communities, and policy. I have skills in natural science and social science research, policy development, and coastal community engagement. I focus on fisheries, bycatch of migratory species, and co-development of knowledge by coastal communities and marine managers for meaningful and impactful solutions.

SKILLS

Fluent in Spanish Science Communication
Scientific Outreach Community engaged work
ArcGIS and QGIS Proficient in R

EXPERIENCE

Aug 2024-
Present

Crowder Lab at Stanford University: Palo Alto, CA
PhD Student

- Analyzed potential bycatch risk of loggerhead sea turtles from the tuna longline fishery in the Pacific Ocean as part of the Loggerhead STRETCH project
- Planned with partners from Universidad de San Francisco de Quito to develop a project to understand the temporal changes in the Galapagos Marine Reserve using community photography and oral interviews
- Developed strong data analytics skills in ArcGIS pro, ArcGIS storymaps, R, and Maxent

May - Aug
2023

National Marine Fisheries Service Greater Atlantic Regional Fisheries Office: Gloucester, MA
William M. Lapenta 2023 NOAA Intern

- Developed and wrote a policy implementation plan for the use of data loggers to monitor tow durations in trawl fisheries
- Interviewed interagency groups and local fishing industry partners and communicated the development of such data loggers
- Listened to archived interviews with immigrant fishing industry workers in Spanish to understand the needs of New England fish processing workers as part of NOAA's equity and environmental justice implementation plan

Jan- May
2023

Universidad de San Francisco de Quito: Quito and San Cristobal Island, Galapagos, Ecuador
Student Researcher

- Completed a research project on human impacts on *V. melones* whelks in the intertidal of Western Ecuador
- Examined and reported on the physical morphology of fish genera in the Amazon River Basin
- Researched and wrote a report on the health of the Pencil Sea Urchin (*E. galapagensis*) on San Cristobal Island
- Researched and provided protection recommendations for the Concha Perlas Lagoon nursery on Isabela Island
- Performed scuba coral reef surveys around Santa Cruz Island to report on the state of marine invertebrates

Dec 2020 -
May 2024

Arnosti Marine Lab: Chapel Hill, NC
Undergraduate Research Assitant

- Worked on characterization and synthesis of fluorescently-labeled polysaccharides
- Set sail on a 3-week research cruise in the North Atlantic Ocean alongside colleagues from the Max Planck Institute for Marine Microbiology and Southern Denmark University
- Processed enzymatic rates and developed graphs using R
- Presented my independent research on the pressure effects on diverse extracellular enzymes at the 2022 American Geophysical Union Fall Meeting
- Developed a scientific outreach project, posting daily on X about our research cruise and writing an article published in UNC Research's Endeavor Magazine about our 2022 research cruise.

EDUCATION

Stanford University

2024-2029
Doerr School of Sustainability
Oceans Ph.D. | Crowder Lab

University of North Carolina at Chapel Hill

2020-2024
GPA: 3.499
B.S. Environmental Science with minors in
Marine Science and Environmental Justice

Universidad de San Fransisco de Quito

Spring 2023
Studied abroad at the institution's sites in
Quito, Ecuador, and San Cristobal Island, Galapagos

Charlotte Latin School

2016-2020

- Aug 2022 - May 2024** **NC Policy Collaboratory: Chapel Hill, NC**
Student Intern
- Helped compile data to track the health of North Carolina's fisheries
 - Used U.S. census data to understand demographics in Eastern NC
 - Used GIS databases and QGIS to locate areas of impervious land cover in Eastern NC
 - Researched the needs of minority groups in Eastern NC in relation to how the health of fisheries and fisheries policy may affect them
- Dec 2020 - May 2021** **UNC Institute of the Environment: Chapel Hill, NC**
Undergraduate Research Assistant
- Researched effects of climate change and extreme weather on the health of children (age 0-12)
 - Created and organized tables and materials on my research to share with stakeholders
 - Created a list of contacts for environmental education programs in Eastern North Carolina
 - Planned an educational event for environmental educators in Eastern North Carolina with my team
- May 2022- May 2024** **UNC Institute for the Environment Board of Visitors: Chapel Hill, NC**
Student Representative
- Represented and advertised the Institute's proposal for the UNC senior class initiative which was a fund to support environmental justice research
- Aug - Dec 2021** **Independent Research Project Facilitated by UNC Institute of Marine Sciences and Duke University Marine Lab: Morehead City, NC**
Student
- Examined the presence of ecosystem service provisioning focuses in restoration research in populations of mangroves, coral reefs, and seagrasses
 - Screened 58 research papers that met inclusion criteria and extracted data from the study on the population, the control used, and the comparators in the study
- Aug - Dec 2021** **UNC Institute of Marine Sciences Capstone Research: Morehead City, NC**
Student
- Researched the fish species present in ponds on Core Banks, NC created by Hurricane Dorian
 - Conducted field research collecting data on the species present in 6 individual ponds
 - Presented and wrote up findings for the National Park Service to inform management decisions on Core Banks
- May - Aug 2021** **Birdseye Renewable Energy/ Dominion Energy: Charlotte, NC**
Intern
- Researched the possibility of using pollinator-friendly grasses on solar farms in order to sequester carbon and rejuvenate soil health
 - Engaged with and educated community members living near solar farm development sites
 - Created Smartsheets to organize the due diligence process for solar farm development
 - Created KMZ GIS files which embedded photos of solar sites into a map of the site
- Sept 2020 - May 2021** **UNC Chapter of North Carolina Public Interest Research Group: Chapel Hill, NC**
Intern
- Coordinated, planned, and recruited for events in the New Voters Project and the Campus Sustainability "Stop Arctic Drilling" Campaign
 - Oversaw, trained, and managed small groups of volunteers and interns for projects and events
 - Gained extensive outreach and communication skills while representing the campaigns and organization through phone banking, class announcements, text, and email banking, and conversations with external contacts
 - Social media design and coordination

SERVICE AND EXTERNAL ENGAGEMENT WORK

- Aug 2024- Present** **Black Ocean Stanford Scholars (BOSS)**
Communications and marketing lead
- Launched an outreach initiative to pair Black graduate students and post-doctoral scholars with Black undergraduates in the area to mentor them as they make their transitions to graduate school or to the professional world
 - Partnered with the Monterey Bay Aquarium to develop a workshop to build community and form relationships between Black folks interested in ocean-related fields in the San Francisco Bay Area and the Monterey Bay Area
 - Created an exhibit to highlight the history of Black relationship with the ocean to help reconnect Black folks to the important history that many of us are unaware of.
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- 2025 **Stanford Marine Outreach for Learning and Advocacy in Students (MOLAS)**
President
- Co-founded Stanford MOLAS with classmates from the Oceans Department to create an opportunity to inspire elementary-aged students with limited access to the Ocean and systemic barriers to outdoor education to develop advocacy and relationships with ocean systems
 - Applied for and was awarded \$1,000 through the Mel Lane Student Grant Program to begin our initiative
- 2025 **Sustainability Undergraduate Research in Geoscience and Engineering Program (SURGE)**
Application Reviewer
- Reviewed 16 undergraduate applications for admission to the Stanford SURGE program
 - Attended training and learned equitable best practices for ensuring fair and equal reviews

AWARDS & CONFERENCES

- 2025 **Thirtieth United Nations Conference of Parties (COP30): Belém, Brazil**
- Attended COP30 as a member of the Stanford University delegation with the Woods Institute for the Environment and represented the university at our booth in the Green Zone.
- 2024 **National Science Foundation Graduate Research Fellowship Program**
- Developed a proposal to look at marine protected area effectivity during extreme climate events such as El Niño and was awarded the three-year fellowship program to support my Ph.D studies.
- 2024 **Stanford Doerr School of Sustainability Dean's Graduate Fellow**
- Awarded the SDSS fellowship which supports outstanding incoming graduate students who have demonstrated leadership and commitment in diversity, equity, and inclusion (DEI) and show the potential to continue their engagement in DEI service at Stanford Doerr School of Sustainability. The Dean's Graduate Scholars receive tuition, salary, and research support.
- 2024 **Stanford EDGE: Enhancing Diversity in Graduate Education Doctoral Fellowship Program**
- The EDGE program aims to increase and retain diverse students in doctoral programs at Stanford via financial support, professional development support, and a cohort of diverse students to support one another. I was awarded this fellowship following my admission to the Stanford Oceans doctoral program.
- 2023 **Society for the Advancement of Chicanos/ Hispanics & Native Americans in STEM National Diversity in STEM Conference**
- Funded as a part of their travel scholars program to attend the conference in Portland, OR and speak on a panel about diversifying the field of marine sciences.
- 2023 **Association for the Sciences of Limnology and Oceanography Aquatic Sciences Meeting & Multicultural Program**
- Accepted to attend a networking and professional development program intended for diverse students in oceanography and limnology, and presented at the annual ASLO conference in Mallorca, Spain in summer 2023
- 2022 & 2023 **American Geophysical Union Fall Meeting**
- Received a \$ 1,000 travel grant to attend the 2023 fall meeting and give an oral presentation on my work with NOAA on potential policy tools to mitigate incidental catch of sea turtles in trawl fishing industries.
 - Created and presented a research poster on the pressure effects on microbes in the deep ocean
- 2022 **UNC Roberts-Watson Research Fellowship**
- Awarded the \$5,000 Roberts-Watson Fellowship to continue my summer research in marine microbiology and to present my findings at the fall 2022 American Geophysical Union conference
- 2022 **Summer Undergraduate Research Fellowship**
- Awarded the \$4,000 Summer Undergraduate Research fund to pursue my research with the Arnosti Lab on the enzymatic activities of polysaccharides at in-situ pressure
- 2021-2022 **UNC Dean's List**
- Awarded to students with a minimum of a 3.500 semester grade point with no grade lower than a C if enrolled in at least 12 hours of letter-grade credit (UNC Dean's List was suspended in 2020 due to the COVID-19 pandemic)

PUBLICATIONS

Balmonte, J.P., Arnosti, C., Bartlett, D.H., Caddell, S. and Glud, R.N. (2025), Effects of increasing hydrostatic pressures on marine microbial enzymatic activities. *Limnol Oceanogr.* <https://doi.org/10.1002/lno.70164>

MEDIA ATTENTION

Article I wrote for UNC Research Endeavors Magazine

- <https://endeavors.unc.edu/21-days-at-sea/>

Article I wrote on my experience at the Institute of Environment's Morehead City Field Site:

- <https://environmentblog.web.unc.edu/2021/12/carolina-at-the-coast-a-semester-at-the-morehead-city-field-site/>

A profile written about my research interests by UNC Endeavors Magazine:

- <https://endeavors.unc.edu/stephanie-caddell/>

Articles written about the Morehead City Fieldsite capstone research project:

- <https://www.unc.edu/discover/a-classroom-on-the-core-sound/>
 - <https://coastalreview.org/2021/12/students-study-ponds-dorian-created-on-north-core-banks/>
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