

Ava Besecker

Contact Information



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Social Links: [LinkedIn](#), [Instagram](#), [YouTube](#), [Twitter](#)

Contributions: [Bonehenge](#), [Study Abroad Spotlight](#), [Student Profile](#)

Objective

Second year masters student with both lab and field experience and excellent collaboration skills. I am interested in marine conservation biology, specifically coral reef physiology and restoration.

Academic Background

- 2023 - Present **M.S. Marine Science** – California State University Monterey Bay – Moss Landing Marine Laboratories – Seaside, CA – GPA: 3.89/4.00
- 2019 - 2023 **B.S. Marine Sciences** (Concentration: Biological Oceanography) with minors in Biological Sciences and Zoology – Global Perspectives Certificate Program – North Carolina State University – Raleigh, NC – GPA: 3.76/4.00

Research and Employment Experience

- 2023 - Present **Library Student Assistant** – Moss Landing Marine Labs/MBARI Research Library – Supporting the daily operations of the library by supporting library staff. Responsibilities included organizing and shelving books, creating temporary displays, data entry, interacting with patrons by answering questions about the library’s resources and services, and many other administrative tasks such as photocopying, printing and interlibrary loan requests.
- 2023 - Present **Teaching Associate** – California State University Monterey Bay – Introduction to Oceanography, Introduction to Chemistry, Marine Biodiversity Lab – Providing instructional support, lab assistance, and graded assignments for primary instructor. Assisted in fostering a positive learning environment for students through tutoring during office hours, providing feedback on assignments, explaining difficult concepts, and guiding students through protocols and experiments.
- 2023 **Ecological and Geological Processes in an Immersive Scientific Diving Experience** – Bonaire – Developed an understanding of the fundamental principles of geologic and biotic processes under the guidance of marine and Earth scientists through a semester long class and ten day study abroad trip – obtained my American Academy of Underwater Sciences (AAUS) scientific diving qualification and PADI Reef Renewal Diver

Specialty

- 2023 **Undergraduate Research Assistant** – Aquatic Epidemiology and Conservation Lab, North Carolina State University – Raleigh, NC – Developed and executed my own research project on the effect of temperature on the embryonic development of the magnificent ramshorn, (*Planorbella magnifica*) – Aquarium maintenance, temperature monitoring and feeding of housed snails and embryos, preparation of future published manuscript
- 2022 - 2023 **Provost's Professional Experience Program (PEP)** – Aquatic Epidemiology and Conservation Lab, North Carolina State University – Raleigh, NC – Assisted in multiple ongoing research projects including the Environmental Source Tracking Project – PCR, DNA extraction, enterococcal assay, filtration
- 2022 **Dr. Patricia McClellan-Green Summer Fellow** – Center for Marine Science and Technology (CMAST), North Carolina State University – Morehead City, NC – Conducted a summer long independent research project analyzing the density of fish in the family *Scianidae* in relation to channel dredging in Beaufort Inlet, NC – gained experience with statistical analysis programs (R, Microsoft Excel), boat maintenance, gear deployment and trailering
- 2022 **Universidad San Francisco de Quito (USFQ) Galápagos Semester Exchange Program** – GAIAS, Galápagos Science Center, Tiputini Biodiversity Station – San Cristóbal, Galápagos and Quito, Ecuador – Learned scientific sampling techniques (laying transects while diving and snorkeling, underwater videography and photography for data collection, scientific report writing, in situ visual surveys, juvenile shark tagging, gill net deployment) – Completed 22+ dives – Courses: Techniques of Marine Research I & II, Marine Ecology, Marine Ecosystem Based Management, Freshwater Ecology
- 2021 - 2022 **NC Marine Mammal Strandings Researcher** – Center for Marine Science and Technology (CMAST), North Carolina State University – Morehead City, NC – Contributed to unpublished inland marine mammal strandings data analysis
- 2021 **Semester at CMAST Program** – Center for Marine Science and Technology (CMAST), North Carolina State University – Morehead City, NC – Conducted a semester long independent research project on the anthropogenic impacts on reef fish in the Florida Keys National Marine Sanctuary – Courses: Marine Mammal Biology, Marine Conservation Biology, Marine Resource Policy and Management

Honors and Awards

2024	Moss Landing Marine Labs WAVE award (\$500)
2024	Dr. Kenneth H. Coale Graduate Scholar Award (\$4000)
2023	California State University Program for Education and Research in Biotechnology (CSUPERB) Student Travel Award (\$1500)
2023	Outstanding Senior in Marine Science Award
2023	<u>Yusor Abu-Salha Award for Outstanding Community Engagement</u>
2022	College of Sciences Student Excellence Award - honorable mention
2021 - 2023	MEAS Honors Program
2020 - 2023	Dean's Circle Scholarship
2020 - 2023	Doris and Rush Thompson Scholarship
2019 - 2023	NC State Semester Dean's List

Volunteer Experience

2021 - 2022	Bonehenge Whale Center – Morehead City, NC – Reconstructed marine mammal skeletons, conducted photo ID analysis and identification trips
2021	North Carolina Oyster Trail – Educated oyster farmers, restaurant owners, and community members on the importance of oyster reefs at various ocean festivals and community events.
2021	Pleasure Island Sea Turtle Project – Carolina and Kure Beach, NC – Morning patrol in search of potential sea turtle nests, nest and crawl identification, educated visitors and tourists on sea turtles
2017 - 2019	Greensboro Science Center – Greensboro, NC – Interacted with and educated visitors, mentored and trained new docents on job protocol, achieved 250+ service hours

Campus Involvement

2023 - Present	Council of Graduate Students at CSUMB – Secretary
2023 - Present	Monterey Area Research Institutions' Network for Education (MARINE) – MLML student liaison
2022 - 2023	Marine Science Graduate-Undergraduate Mentorship Program – Assigned undergraduate students with graduate student mentors, planned social and professional development interaction events.
2020 - 2023	Marine Science Club at NC State – Founder and president

2022 - 2023 **PackAbroad Ambassadors** – Represent the Study Abroad Office at global events, give presentations to first year students about study abroad opportunities at NC State

2020 - 2022 **Epsilon Eta Environmental Fraternity at NC State**

2019 - 2023 **Student Wolfpack Club**

Certifications

2023 **AAUS Scientific Diver**

2023 **Reef Renewal Diver Specialty** – PADI #23060E9002

2022 **NC BoatUS Safety Course**

2022 **Advanced Open Water Diver** – PADI #22040K2072

2021 **Enriched Air Nitrox Level 2 (40%)** – SSI #800844H6369320956418-US

2018 **Open Water Diver** – PADI #18080H1058

Field Skills

Photography Nikon D3400, GoPro Hero 9

Sampling Gillnet, lobster traps, rod and reel, seine net, plankton tow, niskin bottle, refractometer, underwater transect and quadrat, otolith removal from dolphin stomachs, YSI use and calibration, EXO2

Driving License #40012689, boat trailering

Research Cruises Plankton collection and marine optics on the R/V Capricorn

Lab Skills

Water Quality Centrifuge, pipetting, filtration, microscope proficiency, spectrophotometer, DNA extraction, PCR

Computer Skills

Statistical R language program, RStudio, Matlab, Python

Database Microsoft Office Suite, Google Sites

Satellite Mapping ArcGIS, Google Earth Pro

Video Editing iMovie

Professional Affiliations

2021 - Present **Society for Women in Marine Sciences**

2020 - 2023 **Gamma Beta Phi National Honor Society**

Conferences and Summits

2024 **Annual MARINE Symposium** - Main facilitator

2024	CSUMB Graduate School Prep Conference - Facilitator and panelist
2023	MEAS Symposium - Presenter
2023	Blue Economy Workshop - Attendee
2018	Youth Ocean Conservation Summit - Attendee

Relevant Coursework

Quantitative	Physics I & II, Calculus for Engineers and Scientists I & II, Physical Oceanography
Biology	Marine Mammal Biology, Marine Conservation Biology, Biological Oceanography, Ecology Evolution and Biodiversity, Cellular and Molecular Biology, Graduate Level Molecular Biological Techniques
Zoology	Animal Anatomy and Physiology, Animal Phylogeny and Diversity
Language	Intermediate Spanish I & II, Conversational Spanish
Field	Techniques of Marine Research I & II, Coastal Processes
Ecology	Introduction to Ecology, Marine Ecology, Freshwater Ecology, Graduate Level Marine Ecology
Policy	Ecosystem Based Management, Marine Resource Policy and Management

Posters and Presentations

2023	Impact of Temperature on the Embryonic Development of the Magnificent Ramshorn (<i>Planorbella magnifica</i>)
2022	Density of Sciaenids in Relation to Channel Dredging in Beaufort Inlet, NC
2022	Competition Between Coral and Macroalgae in the Galapagos
2022	Wastewater Management in San Cristobal Island, Galapagos
2022	Interactions Between Pencil Urchins and Damselfish in San Cristobal, Galapagos
2021	The Human Impact on Reef Fish Abundance in the Florida Keys National Marine Sanctuary

References

Dr. Cheryl Logan	CSUMB Professor, Masters Thesis Advisor – clogan@csumb.edu
Amanda Kahn	MLML Professor and Researcher, Masters Thesis Advisor – amanda.kahn@sjsu.edu

Dr. Carrie Thomas NC State Professor, Director of MEAS Undergraduate Programs and Academic Advisor - cjthomas@ncsu.edu

Dr. Vicky Thayer Director of the North Carolina Marine Mammal Strandings Program and NC State Professor - vgthayer@gmail.com

Dave Eggleston Director of CMAST and Alumni Distinguished Undergraduate Professor at NC State - eggleston@ncsu.edu

Melissa LaCroce Eggleston Lab Research Coordinator and Technician - mlacroc@ncsu.edu

Maggie Puryear MEAS Undergraduate Advisor and Marine Science Club Faculty Advisor - maggie_puryear@ncsu.edu

Cesár Peñaherrera USFQ professor and marine megafauna researcher at Migramar - cesar.penaherrera@migramar.org

Gabe Hopkins Florida Wildlife Commission biologist – gabriel.hopkins@myfwc.com