

AMELIA L. RITGER

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<https://ameliaritger.netlify.com/>

EDUCATION

University of California, Santa Barbara

2021 – present Ph.D., Ecology Evolution and Marine Biology

2018 – 2021 M.A., Ecology Evolution and Marine Biology

Advisor: Gretchen Hofmann

Dartmouth College

2011 – 2015 B.A., Biology; Anthropology modified with Environmental Studies

GPA: 3.66/4.0, *cum laude*

PROFESSIONAL EXPERIENCE

Research

2021 – 2022 **Graduate Student Researcher**

Santa Barbara Coastal LTER – UC Santa Barbara (Santa Barbara, CA)

2016 – 2018 **Research Assistant**

Dr. Daniel Kronauer – Rockefeller University (New York, NY)

2015 – 2016 **James B. Reynolds Scholar**

Caribbean Marine Biological Institute (Curacao, Dutch Antilles)

2014 **Junior Research Scholar**

Mentor: Jessica V. Trout-Haney

Dr. Kathryn L. Cottingham – Dartmouth College (Hanover, NH)

2014 **CCMI Research Experience for Undergraduates (REU) Intern**

Dr. Thomas K. Frazer – Central Caribbean Marine Institute (Little Cayman, British West Indies)

2014 **Dartmouth Biology Foreign Study Program (FSP) student**

Dr. Ryan Calsbeek, Dr. Matthew Ayres, and Dr. Celia Chen (Costa Rica and Little Cayman, BWI)

2013 **Lab and Field Assistant**

Dr. Seth D. Dobson – Caribbean Primate Research Center (Cayo Santiago, Puerto Rico)

2012 – 2013 **Sophomore Science Scholar**

Mentor: Samuel B. Fey

Dr. Kathryn L. Cottingham – Dartmouth College (Hanover, NH)

Mentorship

2022 **Ricardo Hernandez** (Georgia State University): *The Heat is on: Evaluating the intraspecific variation of *Corynactis californica* in response to marine heatwaves*
Ocean Global Change Biology REU, UCSB (Santa Barbara, CA).

2022 **Ryan Wang** (UC Santa Barbara): *Time series analysis of intertidal pH and temperature data*

2022 **Michelle Sun** (Basis Independent Silicon Valley): *Exploring Interactions between *Corynactis californica* and *Lytechinus pictus* in California Kelp Forests*

- Research Mentorship Program, UCSB (Santa Barbara, CA)
Current status: Undergraduate student (Northwestern University)
- 2022 **Cody Busch-Weiss** (Laguna Blanca School): *Developing an Open-source pH Sensor to Monitor Ocean Acidification*
 Research Mentorship Program, UCSB (Santa Barbara, CA)
- 2021 – 2022 **Zoe Fung** (UC Santa Barbara): *Investigating the influence of interacting environmental mosaics on an abundant intertidal snail*
 Faculty Research Assistance Program, UCSB (Santa Barbara, CA)
- 2021 – 2022 **Doris Lius** (UC Santa Barbara): *Leveraging Marine Science Datasets for Integrated and Interactive K-12 Learning*
- 2021 **Aanchal Garg** (UC Santa Barbara): *Investigating the influence of interacting environmental mosaics on an abundant intertidal snail*
- 2021 **Kayla Caplin** (Paul D Schreiber High School): *The Influence of the Strawberry Anemone (Corynactis californica) on Purple Urchin Foraging Behavior*
 Research Mentorship Program, UCSB (Santa Barbara, CA)
- 2020 – 2021 **Ellyse Anderson** (UC Santa Barbara): *Will you be my neighbor? Ecological interactions between a corallimorph and kelp forest critters on the benthos*
 EEMB Senior Honors Program, UCSB (Santa Barbara, CA)
 Faculty Research Assistance Program, UCSB (Santa Barbara, CA)
- 2020 **Carlyn Hamel** (Pacific Ridge High School): *The Effects of Corynactis californica on the Foraging Behavior of Purple Urchins at Various Starvation States*
 Research Mentorship Program, UCSB (Santa Barbara, CA)
Current status: Undergraduate student (University of California, Santa Barbara)
- 2019 **Xavius Boone** (UC Davis): *Urchin Starvation State May Amplify the Positive Interaction Between Corynactis californica and Macroalgae*
 Ocean Global Change Biology REU, UCSB (Santa Barbara, CA).
Current status: Ph.D. graduate student (San Diego State University)

Teaching

- 2022 **Graduate teaching assistant**
 ES 60: Applied Ecology (UC Santa Barbara)
- 2014 **Undergraduate teaching assistant**
 BIOL 27: Animal Behavior (Dartmouth College, Hanover, NH)

FELLOWSHIPS & AWARDS

- 2022 National Science Foundation Non-Academic Research Internships for Graduate Students - *Olympic National Park (National Park Service)*
- 2022 National Science Foundation Non-Academic Research Internships for Graduate Students - *Olympic Coast National Marine Sanctuary (National Oceanic and Atmospheric Administration)*
- 2021 UCSB Ecology, Evolution, and Marine Biology Storke Award
- 2018 National Science Foundation Graduate Research Fellowship Program
- 2015 James B. Reynolds Scholarship for Foreign Study
- 2014 Central Caribbean Marine Institute Research Experience for Undergraduates
- 2014 Dartmouth Undergraduate Research Grant

2012 Dartmouth Sophomore Science Scholarship

RESEARCH GRANTS

2021 Schmidt Family Foundation Research Accelerator Award (\$8,000)
 2020 UCSB Associated Students Coastal Fund Major Grant (\$15,740)
 2019 UCSB Graduate Students Association Travel Grant (\$200)
 2015 James B. Reynolds Scholarship for Foreign Study (\$20,000)

PUBLICATIONS

Published

Ingeman, K.E., Zhao, L.Z., Wolf, C., Williams, D.R., **Ritger, A.L.**, Ripple, W.J., *et al.* 2022. Glimmers of hope in large carnivore recoveries. *Scientific Reports* 12(1): 1-13.

Trout-Haney, J.V., **Ritger, A.L.**, Cottingham, K.L. 2021. Benthic cyanobacteria of the genus *Nostoc* are a source of microcystins in Greenlandic lakes and ponds. *Freshwater Biology* 66: 266-277.

Ritger, A.L., Fountain, T.C., and Pierotti, M.E.R. 2020. Evidence for selectivity in the invasive lionfish (*Pterois volitans/miles*). *Journal of Experimental Marine Biology and Ecology* 524: 151311.

Chandra, V., Fetter-Pruneda, I., Oxley, P.R., **Ritger, A.L.**, McKenzie, S.K., Libbrecht, R., Kronauer, D.J.C. 2018. Social regulation of insulin signaling and the evolution of eusociality in ants. *Science* 361(6400): 398-402.

Ritger, A.L., Curtis, A., and Chen, C.Y. 2018. Bioaccumulation of mercury and other metal contaminants in invasive lionfish (*Pterois volitans/miles*) from Curaçao. *Marine Pollution Bulletin* 131: 38-44.

PRODUCTS

Shiny app – Marine Biodiversity Observation Network (<https://ameliaritger.shinyapps.io/mbon-shiny-app/>)

Shiny app – Ocean Acidification Classroom Resource (<https://ameliaritger.shinyapps.io/intertidal-oa-education/>)

MEETING PRESENTATIONS

2022 *A Decade of Data: pH and temperature trends in the Santa Barbara Coastal LTER*
 Long Term Ecological Research All Scientists' Meeting (Asilomar, CA). Poster.

2021 *Monitoring ocean acidification in California rocky intertidal habitats.*
 102nd Annual Meeting of the Western Society of Naturalists (Virtual). Poster.

2019 *Intraspecific variation in a clonal corallimorph alters purple urchin foraging behavior.*
 100th Annual Meeting of the Western Society of Naturalists (Ensenada, Mexico). Poster.

2017 *Patterns of Mercury bioaccumulation in invasive lionfish (Pterois volitans/miles) from Curacao.*
 13th International Conference on Mercury as a Global Pollutant (Providence, RI). Talk.

2015 *Friend or foe? Prey fish perception of predatory lionfish.*
 Karen E. Wetterhahn Science Symposium (Hanover, NH). Poster.

PUBLIC EDUCATION & OUTREACH

- 2019 – 2022 Judge, Santa Barbara County Science and Engineering Fair. UCSB (Santa Barbara, CA; virtual)
- 2020 Interview a Scientist, Sci-Section Radio Show (radio/streaming/online)
- 2020 Science communicator, Transitional Kindergarten class. Hollister Elementary School (Goleta, CA)
- 2019 Science communicator, World Oceans Day Festival. Santa Barbara Museum of Natural History Sea Center (Santa Barbara, CA)
- 2016 Oral presenter – *To Eat or Not to Eat? The diet of the Curacao lionfish and the woes of field research*. Caribbean Marine Biological Institute (Curacao, Dutch Antilles)
- 2014 Oral presenter – *Friend or foe? Prey fish perception of predatory lionfish*. Central Caribbean Marine Institute (Little Cayman Island, BWI)

PROFESSIONAL SERVICE

University and Departmental service

- 2019 – 2022 UCSB EEMB Graduate Student Symposium Committee
- 2019 – 2022 UCSB EEMB Diversity, Equity, Inclusion and Wellness Committee
- 2019 – 2022 UCSB EEMB Diversity, Equity, and Inclusion Working Group #2
- 2022 UCSB EEMB Diversity, Equity, and Inclusion Working Group #3
- 2020 – 2021 UCSB American Association of University Women (AAUW) Mentorship Program
- 2020 – 2021 UCSB Associated Students Bike Shop Building Committee

Reviewer for scientific publications

Ecology, Ethology

Reviewer for grant proposals

NOAA/MARFIN