

**An Bui**  
Environmental Studies Program  
University of California, Santa Barbara  
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## ACADEMIC POSITIONS

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- 2025 Assistant Teaching Professor of Quantitative Methods and Data Science  
University of California, Santa Barbara. Environmental Studies Program.

## EDUCATION

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- 2025 PhD. UCSB. Ecology, Evolution, and Marine Biology.  
Thesis: Functional approaches to understanding kelp forest community dynamics.  
Committee: Dr. Hillary Young (co-chair), Dr. Carla D'Antonio (co-chair), Dr. Robert Miller
- 2025 Certificate in College and University Teaching. UCSB.  
*Development of portfolio showcasing achievement in teaching*
- 2020 MArts. UCSB. Ecology, Evolution, and Marine Biology.  
Thesis: Soil fungal community richness and diversity are highest in arid environments along a climatic space-for-time substitution  
Committee: Dr. Holly Moeller (chair), Dr. Hillary Young, Dr. Carla D'Antonio
- 2015 BSc. UCSB. Ecology & Evolution with emphasis in Evolution.  
Thesis: Predator avoidance behavior in Pacific tree frogs (*Pseudacris hypochondriaca*)  
Advisor: Dr. Cherie Briggs
- BArts. UCSB. English with specialization in Modern Literature and Critical Theory.  
Thesis: William Faulkner and the Ecological Significance of Yoknapatawpha County  
Advisor: Dr. Elizabeth Heckendorn Cook

## TEACHING EXPERIENCE

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### Instructor of Record

- 2023-25 Statistics for Environmental Studies (ENVS 193DS, undergraduate, 3 quarters)

### Head Teaching Assistant

- 2017-25 Vertebrate Ecology and Evolution (EEMB 113L, undergraduate, 9 quarters)  
*Designed curriculum, wrote course syllabus, supervised teaching assistant team*

### Teaching Assistant

- 2023-24 California Ecology and Conservation (undergraduate, 1 quarter and 1 summer term)  
2023 Data Visualization and Communication (EDS 240, graduate, 1 quarter)  
2022 Ethology and Behavioral Ecology (EEMB 138, undergraduate, 1 summer term)  
2020-22 Ecological Modelling (EEMB 179/279, undergraduate/graduate, 3 quarters)  
2019 Research in STEM – Marine Ecology (high school, 1 summer term)  
2019 Ecology of Managed Systems (ESM 201, graduate, 1 quarter)

2018-22      Introduction to Ecology (EEMB 120, undergraduate, 4 quarters)

### **Workshops**

- 2025      Santa Barbara Coastal Data Workshop. “Understanding and Preparing Data.” Co-organized with L Kui and K Emery.
- 2024      California Ecology and Conservation. “Principles of Effective Data Visualization.”
- UCSB EEMB Data Management Workshop. Co-organized with P Lovegreen.
- 2023      California Ecology and Conservation. “Basics of R.”
- Society for Open, Reliable, and Transparent Ecology and Evolutionary Biology (SORTEE). “Integrating Javascript Libraries into R for Dynamic Visualizations.” Co-taught with S Csik.
- UCSB EEMB R Seminar. “Figures in {ggplot2}.”
- 2021      R-Ladies Santa Barbara. “Putting the fun in FUNctions.”
- EEMB Multivariate Statistics Workshop. Series of 8 workshops co-led by graduate students.
- 2020-21    UCSB Data Analysis and Coding Club. “Intro to R.” Series of 4 workshops.
- 2020      Southern California Coastal Water Resource Project. “Introduction to community analysis in {vegan}.”
- R-Ladies Santa Barbara. “Data Visualization Part 1.” Co-taught with S Csik and J Verstaen.
- UCSC SCRUBs R Group. “Introduction to community analysis in {vegan}.”
- 2019      EcoDataScience. “Introduction to community analysis in {vegan}.”
- UCSB EEMB. “Community analysis in {vegan}.”
- UCSB Science & Engineering Research Academy. “Introduction to R.”
- R-Ladies Santa Barbara. “Intro to the Tidyverse.” Co-taught with S Csik.
- UCSB EEMB. “Intro to the Tidyverse.” Co-taught with S Csik.

### **Invited lectures**

- 2022      Terrestrial Microbiology (EEMB 145). “Soil fungal community composition and functional similarity shift across distinct climatic conditions.”
- Aquatic Communities (EEMB 142A). “Identifying shorebirds of UCSB Lagoon.”

### **Invited facilitator**

- 2022      Office of Black Student Development: We Outside

### **Invited panelist**

- 2024      Computer Science Academy, Santa Barbara High School

## **TEACHING DISTINCTIONS AND PROFESSIONAL DEVELOPMENT**

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- 2025      Certificate in Inclusive Teaching  
*Workshop series for late-career teaching assistants to improve inclusivity in classroom and curriculum design*
- 2024      Teaching Theory to Practice  
*4 unit course on applying pedagogical theory to teaching at the university level*
- 2022      Pillars of Teaching Assistantship Certificate

2020      *Workshop series for early-career teaching assistants to build skills supporting students*  
UCSB Academic Senate Outstanding Teaching Assistant Award  
*Recognition by the Academic Senate for teaching achievement ([award information](#))*

## RESEARCH AND FIELD EXPERIENCE

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2017-2025	Coal Oil Point Reserve, California
	<ul style="list-style-type: none"><li>- Surveyed small mammals using Sherman trapping techniques</li><li>- Surveyed mesocarnivores and large mammals using camera traps</li></ul>
2019-2025	North Campus Open Space, Santa Barbara, California
	<ul style="list-style-type: none"><li>- Surveyed small mammals using Sherman trapping techniques</li></ul>
2019-2025	Santa Barbara Coastal LTER, California
	<ul style="list-style-type: none"><li>- Collected kelp blades on SCUBA for microbial analyses</li><li>- Conducted benthic surveys for community diversity and kelp abundance</li><li>- Collected macroalgae specimens for dissertation project</li></ul>
2021-2025	Sedgwick Reserve, California
	<ul style="list-style-type: none"><li>- Surveyed cover board array comparing prescribed burn and control reptile communities</li></ul>
2022-23	Coto Brus canton (Las Cruces Biological Station and other areas), Costa Rica
	<ul style="list-style-type: none"><li>- Built seed predator exclosures</li><li>- Monitored seed germination experiment</li><li>- Censused trees in long-term restoration experiment</li></ul>
2018	Channel Islands National Marine Sanctuary, California
	<ul style="list-style-type: none"><li>- Managed seabird survey transect operation</li><li>- Assisted with baited remote underwater video deployment and retrieval</li></ul>
	Eldorado National Forest, California
	<ul style="list-style-type: none"><li>- Conducted vegetation transects, small mammal surveys</li></ul>
2017-19	Tejon Ranch Conservancy, California
	<ul style="list-style-type: none"><li>- Collected soil and vegetation samples for thesis project</li><li>- Conducted floral and pollinator surveys, small mammal surveys, vegetation transects, camera trapping, built mammal exclosures</li></ul>
2017-18	Channel Islands National Park, California
	<ul style="list-style-type: none"><li>- Collected tissue samples from Western gulls</li><li>- Deployed and retrieved GPS tags</li></ul>
2017	Palmyra Atoll, USA
	<ul style="list-style-type: none"><li>- Conducted vegetation surveys, collected and identified invertebrates</li><li>- Drove lagoon boats</li></ul>
2014	Hendrick Reserve Natural Area, California
	<ul style="list-style-type: none"><li>- Collected frogs for behavioral experiments</li></ul>

## MENTORSHIP

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### Undergraduate mentees

2024	Calen Campos
2023	Hayden Vega
2022	Leta Dawson
2019	Ileana Fenwick (co-advised with Sevan Esaian)

2017-2018	Huda Faiz
2017	Carina Isabella Motta
	Bella Mayorga

## AWARDS AND FELLOWSHIPS

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2021-2023	Santa Barbara Coastal LTER Graduate Fellowship (awarded 3 times)
2018	UCSB EEMB Graduate Fellowship (\$3000, awarded twice)
2014	Kirby-Jones Scholarship (\$5000)
	Chris and Anita Anderson Scholarship (\$2800)
2013	William and Marie Thornbury Endowed Scholarship (\$2700)

## GRANTS IN SUPPORT OF RESEARCH

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2023	UCSB Coastal Fund Major Grant (\$12739)
2017	Bloom-Hays Ecological Research Grant (\$1700)
2016	Nisbet Research Grant (\$1100)
2015	Undergraduate Research and Creative Activities Grant (\$700)

## PUBLICATIONS

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13. Welch, ZS, SM Kim, M Liu, **A Bui**, J Grigolite, JL Jones, MD Iglesias-Rodríguez. “Brucite-inspired ocean alkalinity enhancement alters the biogeochemistry and composition of a phytoplankton community: a Santa Barbara channel case report.” *Environmental Research Letters*. 2025.
12. Miller-ter Kuile, A, **A Bui**, A Apigo, S Lamm, M Swan, JS Sanderlin, K Ogle. “If You're Rare, Should I Care? How Imperfect Detection Changes Relationships Between Biodiversity and Global Change Drivers.” *Global Change Biology*. 2025.
11. Copeland, S, S Sambado, **A Bui**, D Orr, A Swei, HS Young. “Variable effects of wildlife and livestock on questing tick abundance across a topographical-climatic gradient.” *Ecosphere*. 2024.
10. Joyce, FH, JA Rosales, KD Holl, RA Zahawi, **A Bui**, JL Reid. “Active restoration facilitates recovery of tropical forest bird communities over two decades.” *Biological Conservation*. 2024.
9. Guerra, AS, **A Bui**, M Klope, DA Orr, SA Shaffer, HS Young. “Leaving more than footprints: anthropogenic nutrient subsidies to a protected area.” *Ecosphere*. 2022.
8. Miller-ter Kuile, A, A Apigo, **A Bui**, K Butner, JN Childress, S Copeland, BP DiFiore, ES Forbes, M Klope, CI Motta, D Orr, KA Plummer, DL Preston, HS Young. “Changes in invertebrate food web structure between high- and low-productivity environments are driven by intermediate but not top predator diet shifts.” *Biology Letters*. 2022.
7. Ingeman, KE, C Wolf, DR Williams, LZ Zhao, AL Ritger, WJ Ripple, KL Kopecky, EM Dillon, BP DiFiore, SR Csik, **A Bui**, AC Stier. “Glimmers of Hope in Global Apex Predator Recovery.” *Scientific Reports*. 2022.
6. Orr, D, **A Bui**, MM Klope, IM McCullough, M Lee, CI Motta, I Mayorga, K Konicek, K, HS Young. “Context-dependent effects of shifting large herbivore assemblages on plant structure and diversity.” *Journal of Ecology*. 2022.
5. Miller-ter Kuile, A, A Apigo, **A Bui**, B DiFiore, ES Forbes, M Lee, D Orr, DL Preston, R Behm, T Bogar, J Childress, R Dirzo, M Klope, KD Lafferty, J McLaughlin, M Morse, C Motta, K

- Park, K Plummer, D Weber, R Young, H Young. "Predator-prey interactions of terrestrial invertebrates are determined by predator body size and species identity." *Ecology*. 2022.
4. **Bui, A**, D Orr, M Lepori-Bui, K Konicek, HS Young, HV Moeller. "Soil fungal community composition and functional similarity shift across distinct climatic conditions." *FEMS Microbiology Ecology*. 2020.
3. Miller-ter Kuile, A, D Orr, **A Bui**, R Dirzo, M Klope, DJ McCauley, C Motta, HS Young. "Impacts of rodent eradication on seed predation and plant community biomass." *Biotropica*. 2020.
2. Lafferty, KD, JP McLaughlin, DS Gruner, TA Bogar, **A Bui**, JN Childress, M Espinosa, ES Forbes, CA Johnston, M Klope, A Miller-ter Kuile, M Lee, KA Plummer, DA Weber, RT Young, HS Young. "Secondary extinction of Asian tiger mosquitoes (*Aedes albopictus*) following rat eradication on Palmyra Atoll." *Biology Letters*. 2018.
1. Hardesty-Moore, M, S Deinet, R Freeman, GC Titcomb, EM Dillon, K Stears, M Klope, **A Bui**, D Orr, HS Young, A Miller-ter Kuile, LF Hughey, and DJ McCauley. "Migration in the Anthropocene: how collective navigation, environmental system, and taxonomy shape the vulnerability of migratory species." *Phil. Trans. R. Soc. B*. 2017.

#### In review/revision:

- Bui, A**, MCN Castorani, BP DiFiore, L Kui, RJ Miller, J Clinton Nelson, DC Reed, AC Stier. "Foundation species recovery yields inconsistent recovery of associated community: a long-term experiment." Authorea preprint DOI: [10.22541/au.173639570.06246065/v1](https://doi.org/10.22541/au.173639570.06246065/v1)
- Orr, D, Z Zilz, E Duge, S Copeland, **A Bui**, CI Motta, A Swei, HS Young. "Context-dependent effects of wildlife and cattle on tick survivorship."

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## PRESENTATIONS

### Contributed Talks

- 2019            Southern California All Hands useR and R-Ladies Meetup. "Exploring communities with {vegan} - an introduction to community analysis."  
**A Bui**  
Yosemite Symbiosis Workshop. "Tree-fungal associations in the Anthropocene: Symbiotroph community composition in a changing climate."
- 2018            **A Bui**, HV Moeller, DA Orr, M Lepori-Bui, HS Young  
UCSB OUTreach Seminars. "Changing relationships in a changing world: how anthropogenic stressors reshape community composition and function."  
**A Bui**

### Posters

- 2015            UCSB Undergraduate Research Colloquium. "Predator avoidance behavior in Pacific tree frogs (*Pseudacris hypochondriaca*)."  
**A Bui**, CJ Briggs, TL Dudley, E Wilson

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## ACADEMIC HONORS

- 2019            Honorable Mention – NSF Graduate Research Fellowship Proposal  
2015            Outstanding Achievement in the English Major  
                  Distinction in the Major, Ecology & Evolution

2014 Distinction in the Major, English  
Phi Beta Kappa

## PROFESSIONAL SERVICE

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### Department and Campus

2025	Graduate student mentor, UCSB Data Analysis and Coding Club Social events coordinator, EEMB Graduate Student Advisory Committee (GSAC)
2020-2023	Student representative, EEMB Working Group on Anti-racism and Climate
2020-2023	Organizer, R-Ladies Santa Barbara
2021-2022	Diversity, Equity, Inclusion, and Wellness Liaison, GSAC
2022	Student representative, Graduate Affairs Committee
2021-2022	EEMB graduate student representative, Marine Science Director search committee
2021	Committee member, UCSB Environmental Health & Safety: Field Safety
2020-2021	Student representative, Faculty Diversity, Equity, and Inclusion Committee, UCSB EEMB
2018-19	Committee member, UCSB Diversity, Equity, Inclusion, and Wellness Committee Graduate student mentor, Women in Science and Engineering Judge, Santa Barbara County Science Fair
2017	Specimen preparator, Cheadle Center for Biodiversity and Restoration Poster session manager, Ecology and Evolution of Infectious Disease Conference

### Outreach

2019-2021	Scientist correspondent, Letters to a Pre-Scientist Scientist, Skype a Scientist Science Project Advisor, Goleta Valley Junior High School
2018-19	Speaker, Partners in Education Career Day
2018	Science project advisor, Partners in Education Science Fair
2016-17	Bird interpreter, Santa Barbara Natural History Museum

## MANUSCRIPTS REVIEWED

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Proceedings of the Royal Society: Biological Sciences; Global Ecology and Biogeography

## CERTIFICATIONS

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Field First Aid, SSI Open Water, AAUS Diver, NAUI Rescue SCUBA Diver, NAUI Nitrox Diver, CPR/O2

## RELEVANT COURSEWORK

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Advanced Data Analysis, Data Analysis for Environmental Science and Management, Software Carpentry (R, GitHub, Python)

## PROFESSIONAL AFFILIATIONS

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Ecological Society of America