

An Bui

Ecology, Evolution, and Marine Biology
University of California, Santa Barbara
an_bui@ucsb.edu | an-bui.com

EDUCATION

- present PhD Candidate. University of California, Santa Barbara. Ecology, Evolution, and Marine Biology.
Committee: Dr. Hillary Young (co-chair), Dr. Carla D'Antonio (co-chair), Dr. Holly Moeller, Dr. Robert Miller
- 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

Instructor of Record

- 2023-24 Statistics for Environmental Studies (ENVS 193DS, undergraduate, 2 quarters)

Head Teaching Assistant

- 2017-24 Vertebrate Ecology and Evolution (EEMB 113L, undergraduate, 8 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

- 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. 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.
- 2019 UCSC SCRUBs R Group. “Introduction to community analysis in {vegan}.”
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

- Present Certificate in Inclusive Teaching (in progress)
Workshop series for late-career teaching assistants to improve inclusivity in classroom and curriculum design
- Certificate in College and University Teaching (in progress)
Development of portfolio showcasing achievement in teaching
- 2024 Teaching Theory to Practice
4 unit course on applying pedagogical theory to teaching at the university level
- 2022 Pillars of Teaching Assistantship Certificate
Workshop series for early-career teaching assistants to build skills supporting students
- 2020 UCSB Academic Senate Outstanding Teaching Assistant Award
Recognition by the Academic Senate for teaching achievement ([award information](#))

RESEARCH AND FIELD EXPERIENCE

- 2017-present Coal Oil Point Reserve, California
- Surveyed small mammals using Sherman trapping techniques
 - Surveyed mesocarnivores and large mammals using camera traps

- 2019-present North Campus Open Space, Santa Barbara, California
- Surveyed small mammals using Sherman trapping techniques
- 2019-present Santa Barbara Coastal LTER, California
- Collected kelp blades on SCUBA for microbial analyses
 - Conducted benthic surveys for community diversity and kelp abundance
 - Collected macroalgae specimens for dissertation project
- 2021-present Sedgwick Reserve, California
- Surveyed cover board array comparing prescribed burn and control reptile communities
- 2022-23 Coto Brus canton (Las Cruces Biological Station and other areas), Costa Rica
- Built seed predator exclosures
 - Monitored seed germination experiment
 - Censused trees in long-term restoration experiment
- 2018 Channel Islands National Marine Sanctuary, California
- Managed seabird survey transect operation
 - Assisted with baited remote underwater video deployment and retrieval
- Eldorado National Forest, California
- Conducted vegetation transects, small mammal surveys
- 2017-19 Tejon Ranch Conservancy, California
- Collected soil and vegetation samples for thesis project
 - Conducted floral and pollinator surveys, small mammal surveys, vegetation transects, camera trapping, built mammal exclosures
- 2017-18 Channel Islands National Park, California
- Collected tissue samples from Western gulls
 - Deployed and retrieved GPS tags
- 2017 Palmyra Atoll, USA
- Conducted vegetation surveys, collected and identified invertebrates
 - Drove lagoon boats
- 2014 Hendrick Reserve Natural Area, California
- Collected frogs for behavioral experiments

MENTORSHIP

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

- 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

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

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:

- Miller-ter Kuile, A, **A Bui**, A Apigo, S Lamm, M Swan, JS Sanderlin, K Ogle. "Accounting for imperfect detection to reveal the importance of current and past environmental conditions for long-term community stability."
- Copeland, S, S Sambado, **A Bui**, D Orr, A Swei, HS Young. "Context-dependent effects of wildlife declines and livestock additions across a climatic gradient on tick abundance in southern California."
- 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."

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."
A Bui, HV Moeller, DA Orr, M Lepori-Bui, HS Young
- 2018 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

ACADEMIC HONORS

- 2019 Honorable Mention – NSF Graduate Research Fellowship Proposal
- 2015 Outstanding Achievement in the English Major
 Distinction in the Major, Ecology & Evolution
 Distinction in the Major, English
- 2014 Phi Beta Kappa

PROFESSIONAL SERVICE

Department and Campus

- Present 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
Committee member, UCSB Diversity, Equity, Inclusion, and Wellness Committee
- 2018-19 Graduate student mentor, Women in Science and Engineering
Judge, Santa Barbara County Science Fair
Specimen preparator, Cheadle Center for Biodiversity and Restoration
- 2017 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

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

CERTIFICATIONS

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

RELEVANT COURSEWORK

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

PROFESSIONAL AFFILIATIONS

Ecological Society of America