

## An Bui

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

### EDUCATION

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

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#### Head Teaching Assistant

- 2017-22      Vertebrate Ecology and Evolution (EEMB 113L, undergraduate, 5 quarters)  
*Designed curriculum, wrote course syllabus, supervised teaching assistant team*

#### Teaching Assistant

- 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)

#### Invited lectures

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

#### Workshops

- 2021          R-Ladies Santa Barbara. "Putting the fun in FUNctions."  
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.

## **DISTINCTIONS**

- 2020 UCSB Academic Senate Outstanding Teaching Assistant Award

## **RESEARCH AND FIELD EXPERIENCE**

- 2021-present Sedgwick Reserve, California
- Surveyed cover board array comparing prescribed burn and control reptile communities
- 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
- 2017-present Coal Oil Point Reserve, California
- Surveyed small mammals using Sherman trapping techniques
  - Surveyed mesocarnivores and large mammals using camera traps
- 2022-present 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

## **AWARDS AND FELLOWSHIPS**

2019-2022	Santa Barbara Coastal LTER Graduate Fellowship (awarded 4 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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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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- Guerra, AS, **A Bui**, M Klope, DA Orr, SA Shaffer, HS Young. "Leaving more than footprints: anthropogenic nutrient subsidies to a protected area." 2022. (accepted)
- 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.
- 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.
- Miller-ter Kuile, A, A Apigo, **A Bui**, et al. "Predator-prey interactions of terrestrial invertebrates are determined by predator body size and species identity." *Ecology*. 2022.
- 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.
- 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.
- 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.
- 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.

## Submitted/in review/revision:

- 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."
- 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

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### 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

## HONORS

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- 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

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### Department and Campus

- Present EEMB graduate student representative, Marine Science Director search committee  
Student representative, EEMB Working Group on Anti-racism and Climate  
Graduate student mentor, UCSB Data Analysis and Coding Club  
Student representative to the Graduate Affairs Committee  
Diversity, Equity, Inclusion, and Wellness Liaison, Graduate Student Advisory Committee  
Organizer, R-Ladies Santa Barbara
- 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
- 2021 Organizer, EEMB Community Analysis Statistics Workshop
- 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

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### **MANUSCRIPTS REVIEWED**

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

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### **CERTIFICATIONS**

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

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### **RELEVANT COURSEWORK**

2019            Advanced Data Analysis  
2018            Data Analysis for Environmental Science and Management  
2017            Software Carpentry (R, Github, Python)

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### **REFERENCES**

Adrian Stier  
Associate Professor, UC Santa Barbara

Holly Moeller  
Assistant Professor, UC Santa Barbara

Bob Miller  
Principal Investigator, Marine Science Institute, UC Santa Barbara

Hillary Young  
Professor, UC Santa Barbara

Deron Burkepile  
Professor, UC Santa Barbara