

Frankie Gerraty

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EDUCATION

University of California, Santa Cruz

Ph.D. Student, Ecology and Evolutionary Biology

Santa Cruz, California

September 2021-Present

Dissertation: Social-Ecological Connectivity Between Land and Sea

Advisor: Dr. Peter Raimondi

Whitman College

B.A. in Biology — Environmental Studies

Walla Walla, Washington

August 2015-May 2019

Thesis: Anthropogenic Impacts on Mangrove Crab Abundance, Zonation, and Diversity in Bocas del Toro, Panamá

GPA: 3.901/4.00 - *summa cum laude*

School for Field Studies

Marine Resource Studies / Tropical Island Biodiversity Studies

Turks and Caicos / Panamá

August-December 2017

GPA: 3.920/4.00

GRANTS, AWARDS AND HONORS *total: \$279,522*

Research Grants

- Tomales Bay Foundation, 2024 (\$3,500)
- UCSC Ecology and Evolutionary Biology Summer Fellowship, 2024 (\$3,500)
- Rebecca and Steve Sooy Graduate Fellowship, 2023 (\$5,749)
- Point Reyes National Seashore Neubacher Fund, 2023 (\$5,000)
- The Explorers Club Exploration Fund, 2023 (\$3,800)
- Tomales Bay Foundation, 2023 (\$3,000)
- Myers Oceanographic and Marine Biology Trust, 2023 (\$2,745)
- PADI Foundation, 2023 (\$2,485)
- Western Society of Naturalists Rafe Sagarin Fund for Innovative Ecology, 2023 (\$2,000)
- International Women's Fishing Association Scholarship, 2023 (\$1,000)
- UCSC Institute for Marine Sciences Student Research and Education Award, 2023 (\$650)
- American Philosophical Society Lewis and Clark Fund, 2022 (\$4,800)
- American Museum of Natural History Lerner-Gray Marine Research Grant, 2022 (\$3,265)
- Rebecca and Steve Sooy Graduate Fellowship, 2022 (\$2,500)
- Phycological Society of America Grant in Aid of Research, 2022 (\$1,970)
- Otter Bay Wetsuit Award, 2022 (*In Kind: \$700*)
- UCSC Graduate Division Travel Grant, 2022, 2023, 2024 (\$500, \$50, \$400)
- DroneCamp Scholarship, 2021 (*In Kind: \$50*)
- Whitman Internship Grant, 2018-2019 (\$1,680)

Fellowships

- National Science Foundation Graduate Research Fellowship, 2021-2026 (\$138,000)
- Achievement Rewards for College Scientists Fellowship, 2024 (\$11,428)
- UCSC Regents Fellowship, 2021 (\$2,500)
- Paul Garrett Leadership Scholarship, awarded to 1% of applicants, 2015-2019 (\$30,950)

- Alexander J Anderson Scholarship, 2015-2019 (\$42,000)

Honors and Awards

- Jan Mejer Award for Best Essay in Environmental Studies, 2019 (\$500)
- Cynthia Ann Lechner Prize, for "outstanding potential in biology," 2019 (\$350)
- Academic Distinction (Every Semester), 2015-2019
- Dipsea Footrace Scholarship, 2015 (\$5,000)
- Marin Garden Club Scholarship, 2015 (\$1,500)
- ELKS Club Scholarship, 2015 (\$800)
- Redwoods Scholarship, 2015 (\$750)

PROFESSIONAL APPOINTMENTS

Graduate Researcher

May - July, 2022-2024

Gulf Watch Alaska

Katmai NP, Kenai Fjords NP, Kachemak Bay, and Prince William Sound, Alaska

- Project: Long-term nearshore ecosystem monitoring.
- Responsibilities: Survey rocky intertidal, mussel bed, and soft sediment infaunal communities; conduct sea otter foraging observations; band and survey black oystercatchers; collect carnivore scat and fish samples.

Data Specialist

February 2020 - Present

U.S. Geological Survey | Supervisor: Dr. Erik Beever

Bozeman, Montana

- Project: American pika (*Ochotona princeps*), porcupine (*Erethizon dorsatum*), and vegetation responses to global environmental change.
- Responsibilities: Data collection, QA/QC, dataset management and analysis, manuscript preparation.

Scientific Diver

May - August 2021

PISCO | Supervisor: Dr. Mark Carr

Santa Cruz, California

- Project: Long-term monitoring of California's kelp forest ecosystems.
- Responsibilities: Conduct SCUBA surveys of kelp forest fishes, invertebrates, and algae.

Research Technician

September - December 2019

The Guppy Project | Supervisor: Dr. David Reznick

Trinidad, West Indies

- Project: Eco-evolutionary dynamics in Trinidadian montane stream communities.
- Responsibilities: Execute guppy mark-recapture experiment in remote tropical rainforest streams.

Field Technician

May - September 2019

U.S. Geological Survey | Supervisor: Dr. Erik Beever

Bozeman, Montana

- Project: Climate-driven changes to American pika (*Ochotona princeps*) population density and habitat occupancy across the American West.
- Responsibilities: Survey mammalian communities at >500 montane talus patches. Data entry, QA/QC, and analysis. Perform literature review on climate change effects on Great Basin pikas.

Aquatic Propagation Lab Technician

August 2018 - May 2019

Confederated Tribes of Umatilla Indian Reservation | Supervisor: A Maine

Walla Walla, Washington

- Project: Holistic approaches to watershed restoration using artificial propagation of Pacific lamprey and freshwater mussels.
- Responsibilities: Animal husbandry, aquaculture system design/construction, assist experiments.

Undergraduate Researcher

August - December 2017

School for Field Studies | Supervisor: Dr. Cinda Scott

Bocas del Toro, Panamá

- Project: Anthropogenic impacts on mangrove crab abundance, diversity, and distribution in Bocas del Toro, Panamá.
- Responsibilities: Design and conduct mangrove crab trapping experiment, build study equipment, lead 6-person expedition team, collect and analyze data. Prepare and present posters (2), presentations (2), and undergraduate thesis (Jan Mejer Award).

Citizen Science Program Leader

August 2014 - May 2015

- Sea level rise induced zonation shifts in rocky intertidal invertebrates.
- Organize and lead 20+ person citizen science expeditions, teach rocky intertidal species ID.

PUBLICATIONS *Student

In the Pipeline

5. FD Gerraty, A Gobei-Bacaylan*, K Diel*. Urbanization alters sandy beach scavenging assemblages but not ecosystem function. (*In Revision*). Preprint.
4. AA Ellis *et al.* [including **FD Gerraty**]. Graduate student labor movements can advance diversity, equity, and inclusion across Ecology, Evolutionary, and Conservation Biology departments. (*In Revision*).
3. EA Beever, ML Westover, AB Smith, **FD Gerraty**, PD Billman, FA Smith. Climate strongly drives patterns of occupancy and density across the trailing-edge of pika geographic distribution. (*In Revision*).
2. EA Beever, AB Smith, D Wright, T Rickman **FD Gerraty**, J Stewart, A Gill, K Klinger, M Robinson. Expanding climate-induced barriers: impassable gaps interior to distribution of an isolated mountain-dwelling species. (*In Review*).
1. B Rooney *et al.* [including **FD Gerraty**]. SNAPSHOT USA 2019-2023: The first five years of data from a coordinated camera trap survey of the United States. (*In Prep*).

Peer-Reviewed Publications

3. FD Gerraty, T Carroll, S Williams*, M Isadore. Recovering predators link aquatic and terrestrial ecosystems: River otters subsidize coyotes with carrion. **Ecology and Evolution**. 14, e11444. PDF.
2. EA Beever *et al.* [including **FD Gerraty**]. 2023. Geographic and taxonomic variation in adaptive capacity among montane small mammals: implications for conservation status and actions. **Biological Conservation**. 282, 109942. PDF.
1. **FD Gerraty**. 2023. The carrion connection: Marine mammal carcasses provide an indirect subsidy to insectivorous birds. **Food Webs**. 35,e00278. PDF.

Non-Refereed Publications

2. **FD Gerraty**. "Range Edges of Northeast Pacific Marine Life," ArcGIS Storymap (2021-present; updated monthly)
1. **FD Gerraty**. "Anthropogenic Impacts on Mangrove Crab Abundance, Zonation, and Diversity in Bocas del Toro, Panamá," Whitman College Thesis Repository (2019)
 - Jan Mejer Award for Best Essay in Environmental Studies at Whitman College

Creative Nonfiction

6. **FD Gerraty** (2021). "Ochre Sea Star," Objeta: *becoming-feral*.
5. **FD Gerraty** (2021). "Tube Feet on Skin," Loam: Living Through Liminality.
4. **FD Gerraty** (2021). "Frogs and Fungi: Caring for Microbial Worlds," New Farmers Almanac Vol. V.
3. **FD Gerraty** (2020). "Intertidal Entanglements," Center for Humans and Nature.
2. **FD Gerraty** (2020). "An Owl Limpet's Garden," The Urban Field Naturalist Project.
1. **FD Gerraty** (2020). "Pandemic Planet," Mangoprism.

PRESENTATIONS *Student †Invited

Talks

- FD Gerraty**. "California Coast Coyotes Connect Land and Sea," Explorers Club Annual Dinner Grantee Symposium. (2024) †
- FD Gerraty**, A Gobei-Bacaylan*, K Diel*. "Does Urbanization Alter Vertebrate Scavenging Assemblages and Ecosystem Functions on California Beaches?" Western Society of Naturalists. (2023)

FD Gerraty. "*Marine Mammal Subsides Along the Marin County Coast,*" State of Tomales Bay Conference. (2023) †

FD Gerraty. "*Coastal Coyotes and Land-Sea Connectivity in Point Reyes National Seashore,*" Point Reyes National Seashore Association's Party on the Pacific Plate. (2023) †

FD Gerraty. "*Urbanization Effects on Shoreline Scavenging Assemblages,*" Monterey Area Research Institutions' Network for Education Spring Colloquium. (2023)

FD Gerraty. "*Pacific Lamprey: A Case Study of Collaboration, Extinction, and Life in the Anthropocene,*" Whitman Undergraduate Conference. (2019)

FD Gerraty. "*Anthropogenic Impacts on Mangrove Crab Diversity, Relative Abundance, and Zonation,*" Whitman Undergraduate Senior Seminar. (2019)

FD Gerraty. "*MPA Efficacy and Anthropogenic Impacts on Mangrove Ecosystems in Bocas del Toro,*" School for Field Studies Symposium. (2017)

Posters

FD Gerraty. "*Fucus Wrack Subsides to Shoreline Invertebrate Assemblages in Southeast Alaska,*" Alaska Marine Science Symposium. (2024)

FD Gerraty. "*Anthropogenic Impacts on Mangrove Crab Diversity, Relative Abundance, and Zonation,*" Whitman Undergraduate Conference. (2019)

FD Gerraty. "*MPA Efficacy and Anthropogenic Impacts on Mangrove Ecosystems in Bocas del Toro,*" School for Field Studies Symposium. (2017)

FD Gerraty. "*Sea Level Rise Driven Zonation Shifts in Rocky Intertidal Invertebrates,*" American Geophysical Union Fall Meeting. (2014)

Co-authored Presentations and Posters

H Coletti*, et al. (including **FD Gerraty**). "*Where the land meets the sea: Linkages between nearshore and terrestrial ecosystems,*" Alaska Marine Science Symposium. (2024)

A Gobei-Bacaylan*, **FD Gerraty**. "*Temporal Dynamics of Coastal Vertebrate Scavenging Activity on California Beaches,*" Western Society of Naturalists. (2023)

A Gobei-Bacaylan*, **FD Gerraty**. "*Coastal Connections: Assessing Vertebrate Scavenger Assemblages Across an Urbanization Gradient,*" UCSC Koret Research Slam. (2023)

D Wright, EA Beever, J Stewart, **FD Gerraty**, T Rickman, and AB Smith. "*An Impassable Gap Dividing Pika Distribution in Northern California,*" North American Pika Consortium. (2023)

EA Beever, ML Westover, **FD Gerraty**, P Billman, F Smith, AB Smith. "*Drought and Climate Impact on American Pika in New Mexico,*" Pajarito Environmental Education Center. (2022)

D Wright, EA Beever, J Stewart, A Gill, **FD Gerraty**, M Robinson, J Fitzgerald, T Rickman, K Klingler, and AB Smith. "*An Impassable Gap Dividing Pika Distribution in Northern California,*" California Department of Fish and Wildlife Science Symposium. (2022)

Panels

FD Gerraty. "*Pathways to Graduate School,*" Younger Lagoon Reserve. (2024)

FD Gerraty. "*The Role of Citizen Science in Intertidal Ecological Research,*" Citizen Science Conference. (2015)

MEDIA COVERAGE (selected from 13 total)

The Mercury News. "*How a series of gruesome seal deaths on the California coast led researchers to a surprise predator*" (2023)

Los Angeles Times. "*California seal pups were turning up headless. Experts finally confirmed the culprit*" (2023)

SFGate. "*An unexpected culprit is decapitating baby seals along the California coast*" (2023)

The New York Post. "*Marine scientists solve mystery behind decapitations of seal pups on California coast*" (2023)

The Independent. "Scientists solved the mystery of headless seals on California beaches" (2023)
NBC Bay Area. "Researchers find answer to mystery of dead seal pups along Northern California coast" (2023)

GUEST LECTURES

Branson High School Marine Ecology (x2)	2023
UC Santa Cruz Marine Ecology Field Quarter	2023
Scotts Valley High School Marine Biology (x2)	2022

NON-ACADEMIC EMPLOYMENT

Podcast Host <i>Santa Cruz Naturalist</i>	2022-Present
Freelance Writer <i>Written work appeared in Loam: Living through Liminality, The New Farmers Almanac, The Center for Humans and Nature, The Urban Field Naturalist Project, Mangoprism, others.</i>	2020-Present
Blog Manager <i>Free Radicals (Science and Justice Activist Collective)</i>	2020-2021
Grant Writer and Executive Assistant <i>National Marine Sanctuary Foundation</i>	2020-2021

MENTORSHIP **Manuscript Coauthor*, †*Koret Scholarship*

Ashley Rogers, Hannah Cassidy, Karla Vaca	2023-Present
Mia Laskan, Isabella Turner, Georgina Stewart	2023
Ann Gobei-Bacaylan* †, Kaia Diel*, Skyler Williams*	2022-2024
Grace Suh, Zoe Reiss	2022-2023

SERVICE

Grant Reviewer: UCSC Koret Scholarship	2022
Science Fair Judge: Westlake Elementary School	2021
UCSC EEB Peer-to-Peer Mentor	2022-Present

SKILLS AND CERTIFICATIONS

- AAUS Scientific Diver (Moss Landing Marine Labs); NAUI Master, Rescue, Nitrox, Advanced Open Water; PADI Open Water Diver [50+ SCUBA dives, subtidal research and surveying (kelp forest, coral reef, seagrass bed, mangrove forest)]
- sUAS Drone Pilot (Part 107 license); DroneCamp Attendee (40 hour drone training course)
- Camera trapping, eDNA
- NOLS Wilderness First Responder, Red Cross Lifeguard, DAN FAPro
- Programming: R, Git/Github
- Mapping: R, QGIS, ArcGIS, Google Earth Pro, CalTopo
- Remote Sensing: Onset HOBO and HOBOWare, Maxim iButton sensors
- English (fluent), Spanish (intermediate), Bahasa Indonesia (beginner)