

ELISE BAUGH:

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EDUCATION:

BS	Ecology and Evolutionary Biology with Honors: University of California, Santa Cruz Advisor: Dr Rita Mehta; Dean's Honors, GPA: 3.62	2023
AS-T	Geology IGETC, College of San Mateo. SMCCD <i>Magna cum laude</i> , GPA: 3.65	2021
AS-T	Biology IGETC, Cañada College <i>Magna cum laude</i> , GPA: 3.65	2021

PUBLICATIONS:

R Beltran, A Payne, A Bastidas, **E Baugh**, K Chau-Perch, M Chavez, D Coffey, A. Negrete, K Ong, S Rivas, M Rodrigues, J Salazar, E Schweitzer, B Stillwell, B Theders, S Wright. Submission Date: Dec 2023. '**Reproduction frequency, but not offspring quality, declines in elephant seals past prime age**', *Journal of Animal Ecology*. (**preprint)

RESEARCH EXPERIENCE:

FIELD RESEARCHER: Beltran Lab, UCSC (Jan 2023 - June 2023)

- **Field Data Collection, Data Management:** Conducted field-based, mark-recapture medical procedures of northern elephant seals. Deployed bio-logging instrumentation & ID tags. obtained physical measurements, collected biometric biological samples and measurements of sedated seal. Monitored sedation delivery times. Observed and documented key events during sedation procedures. Observed and documented field-based re-sights of flipper tagged seals. Adapted to changing tidal, weather, & environmental conditions. GPS Mapping information during field site observations. Data management, analysis and contribution to a long-term dataset on the Año Nuevo seal colony physiology, behavior, foraging & ecology.
- **Team Collaboration & Safety:** Cultivated ongoing relationship between Beltran Lab and Año Nuevo State Park staff. Maintained safety protocols during fieldwork. followed standardized surveying protocols.
- **Literature Review and Research Contributions:** Conducted a comprehensive literature review to ensure a well-informed approach for the NSF-funded study '*Rules of death across ontogeny in sexually dimorphic mammals*'. Independent research study '*Age-dependent lactation dynamics in northern elephant seals*' was subsequently adopted as part of a special feature in the 'Journal of Animal Ecology.'
- **Presentations:** Presented research findings at the UCSC's '*Ecology and Evolutionary Biology Research Symposium*', amplifying the lab's research visibility

LABORATORY RESEARCH ASSISTANTSHIP: Mehta Lab, UCSC (Jan 2022 - June 2023)

- **Executed microscopic photography of eel specimens:** conducted microscopy-based imagery of moray eel specimen in lab environment. Regularly maintained specimens and oversaw lab organization and performed data management tasks: (data entry, reviews, edits, validation)
- **Enhanced research dataset:** Developed species-specific sensory structure datasets based on measured proportions, of skull, olfactory and occipital structures. Documented eel diet preferences/foraging behaviors through literature reviews. Streamlined data org and storage.
- **Data analyses and synthesis:** created data driven phylogenetic insights using R programming.

FIELD RESEARCHER, Ecology and Conservation Super-Course, UCSC, (Jan 2022 - June 2022)

- **Experimental Design, Data Collection & Analysis:** Developed expertise in experimental design, data collection, and analysis across population, community, and behavioral ecology domains. Specialized in data analysis and synthesis using statistical tools like JMP and R, applying these to ecological datasets.
- **Scientific Communication & Team Collaboration:** Enhanced skills in scientific writing and oral presentations, effectively communicating complex ecological concepts and research findings. Demonstrated strong interpersonal and leadership abilities in team settings, particularly in challenging field environments.
- **Field Research and Ecological Study:** Conducted extensive field research in diverse ecosystems throughout California and the Channel Islands. Investigated the fauna, flora, and ecological impacts of human activities, contributing to a broader understanding of these dynamic environments. data entry, reviews, edits, validation

TEACHING & OUTREACH POSITIONS:

Jan/2022-June/2023	EXHIBIT GUIDE AND DOCENT , The Seymour Marine Discovery Center: Created research tour content, reached underrepresented groups, inspired future scientists, performed animal care tasks. Interact with and responds to public questions leading to an immersive and interactive museum experience.
Jan/2019-Dec/2021	PEER/WISE TUTOR, Cañada College: Supported students in Cell and Molecular biology courses (BIOL230 CRN 8908) through peer-led study sessions and individual tutoring.
2018-2019	SI LEADER: Political Science Student Instructional, CSM: Completed training, led peer-facilitated group study sessions for the political science course (PLSC100: CRN 84736) (PLSC200: CRN 95521)
2018-2019	ISC Tutor: Integrated Science Center, CSM: developed learning sessions for students in Geology, Paleontology and Botany: (GEOL100 / GEOL101: CRN: 82470); (PALN110 / PALN111: CRN: 88722), (BIO220: CRN: 97231)

PRESENTATIONS:

2023	<i>'Age-dependent lactation dynamics in northern elephant seals'</i> Authors: Elise Baugh, Mimi Chavez, UCSC, Presented at: Ecology and Evolutionary Biology Research Symposium
2022	<i>'Fire as a mechanism for allelopathy in a eucalyptus dominated riparian habitat in the Santa Cruz Mountains:'</i> UCSC, presented at: UCSC's EEB Department Coastal Campus
2022	<i>'Impact of catastrophic debris flow on terrestrial invertebrate populations at Landels-Hill Big Creek Natural Reserve':</i> UCSC, presented at: UC Natural Reserve
2021	<i>'Biology Follows Geology: Substrate porosity influences intertidal community dominance at Santa Cruz Island, California'</i> Authors: Elise Baugh, Thomas Carey, Nicholas, UCSC, presented at: EEB Coastal Campus,
2020	<i>'Cetacean Microevolution: Gene Loss, Was it on Porpoise?'</i> Canada College, presented at: Virtual Presentation, Quarterly presentations to Canada College STEM based student and faculty

FINANCIAL AND ACADEMIC AWARDS:

Scholarships and Grants: (Total: \$20,334)

Crankstart Transfer Scholars (\$1,666 x3, \$798 x2, \$2275; total \$9,667)	2021-2023
The Bernard Osher Foundation (\$1,666 x3, \$798 x2, \$2275; total \$9,666)	2021-2023
SMCCC Foundation Scholarship (\$1,000)	2021-2022

Academic Awards:

UCSC Ecology and Evolutionary Biology Dean's Honors: Awarded to graduating students whose academic performance demonstrates excellence and results in a GPA of 3.5 or above in their major coursework	2023
Magna Cum Laude: Biology Major College of San Mateo	2020
Magna Cum Laude: Geology Major Canada College	2021
Dean's List: San Mateo Community College District	2016-2021
Dean's List: UCSC	2023

COMMUNITY INITIATIVES:

Family Science Day: Seismology Workshop, Fossil Dig and ID(Geology Club organizer, workshop facilitator)	2016-2019
Cañada College Math & Science Jam (bootcamp tutor)	2019
Pizza & Politics: CSM Democrats (organizer)	2019
CSM Earth Day (volunteer, Botany Club coordinator)	2017 & 2018
Annual Replant Day: Cesar Chavez Community Garden (botany gardening team)	2018
CSM Democrats/Republicans Club's Universal Healthcare Debate (organizer, researcher, debater)	2018
CSM Rally in Support of DACA (organizer)	2017
Centre for Student Life & Leadership Development Club Outreach workshop , (ICC club liaison)	2017

PROFESSIONAL AFFILIATIONS :

Professional Societies:

The Paleontological Society, Pacific Coast Section	2023-Present
Geological Society of America, Cordilleran Section	2023-Present
Earth Science Women Network	2024
Conservation Paleobiology Network	2024

SKILLS:

TECHNICAL: Software Proficiency: Google Earth Pro, R Programming, JMP®, Analytics, Zotero, ImageJ, Microsoft Office, Adobe
Research Equipment: geologic field mapping: GPS navigation, compass/clinometer, rock pick, hand lens, tape measure, Biodiversity sampling: quadrat, line transect, pitfalls, box traps, fixed area plots, biologging deployment, flipper tagging, ID marking, scientific illustration. Identification of species, age, molt, condition and behaviour **Laboratory:** Specimen slide preparation and microscopy based analysis/ measurements, lab equipment calibration and sterilization, preparation of technical reports, database management.

RESEARCH: Field Research: Wildlife observations, recording field data and documentation, binocular-based field observations, fieldwork safety protocols, animal handling and care, mark-and-recapture procedures. **Data Analysis, documentation & Visualisation:** Use of dichotomous keys for identification, research and academic writing, microscopy & photography, science communication. **Scientific Methods:** Experimental design, data collection and analysis, hypothesis testing.

TEAMWORK: Interpersonal: Positivity, enthusiasm, collaboration, adaptability, tenacity **Management:** Communication, time management, project management, health and safety protocols. **Public Engagement:** Public speaking, science communication, education and outreach, training, tutoring and curriculum development,

RELEVANT COURSEWORK:

(L): Lab course; (W): Writing course; * Capstone project super-course; *Graduate level

***Geologic Oceanography:** GEOL 241; **Paleontology:** PALN 110/111(L), **Geology:** GEOL 101(L), **History of Life:** EART 7; **Evolution:** BIOE 109; **Physics-w/-Calculus III;** PHYS 270 ***Ecology-Field-Methods Conservation Practice;** BIO151A/151B/151D, **Bio-Env-Statistics:** STAT7/STA7(L); **Research in EEB:** BIO183(W), **Marine Conserv-Bio:** BIOE 165; **Large Marine Vertebrates:** BIOE 134/134L; **Comparative Vertebrate Anatomy:** BIOE 134/134(L);: BIOE 105/105(L); ***Population-Genetics:** BIOE 172; **Genetics:** BIOL 105; **Cell-&-Molecular-BIO:** BIOL230, **Organismal-Bio:**BIO225/225(L); **Physiology:** BIOE 133/133(L)

CERTIFICATIONS:

Seymour Center Docent Training Certification: UCSC	2022
COVID-19 Health and Safety Plan Training: SMCCD	2021
Hazard Communication (Full Course, California)/Right to Understand (GH): SMCCD	2021
Sexual Harassment Prevention for Non-Managers (SB 1343): SMCCD	2019

REFERENCES:

Lab Supervisor: **Maya McElfish**, PhD student, UCSC Department of Ecology and Evolutionary Biology, Mehta Lab
Email: mmcelfish@ucsc.edu | **Phone:** (315) 527 6035

Field Research Supervisor: **Allison Payne**, PhD Student, UCSC Department of Ecology and Evolutionary Biology, Beltran Lab.
Email alrpayne@ucsc.edu | **Phone:** (949) 310 5883

Academic: **Rita Mehta, PhD:** PI at Mehta Lab, Professor of Comparative Anatomy Course, Chair | UCSC Department of Ecology and Evolutionary Biology | Faculty Director for the Ken Norris Center for Natural History
Email: mehta.eeb.ucsc.edu **Address:** 115 McAllister Way Santa Cruz, CA 95060-5730

Mentor: **Dr. Stephanie M. Aguilon, PhD**Stanford Science Fellow Biology | Stanford University
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