

EMILY MONTES

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Education

- M.S.** California State Polytechnic University, Pomona August 2023 – Present
Biological Sciences
- B.S.** California State University, Long Beach Aug 2019 - May 2023
Major: Environmental Science and Policy
Minor: Biology & Ceramics
Honors: *Magna Cum Laude*

Teaching Experience

California State Polytechnic University, Pomona August 2023 - Present
Department of Biological Sciences

BIOL 1220L – Foundations of Biology: Evolution, Ecology, and Biodiversity Laboratory:

- Using hands-on activities, including field surveys and dissections, students will examine the diversity of life.
- Evolutionary and ecological perspectives to life's biodiversity, application of the practices of science.
- Demonstrate proper laboratory safety techniques.
- Instruct students on basic evolution, ecology, biodiversity, and zoology knowledge and scientific methodologies.

Science Learning Center | CSULB

Jan 2020 – May 2020

Internship

- Created science-based learning activities for 5th graders in the learning center and collaborated with the Director to make science exhibits, posters, and models.
- Created a vermiculture composting exhibit.
- Engaged with students in science-related exhibits.

Working Research Experience

Graduate Research Associate

August 2023 - Present

Cal Poly Pomona Foundation – Pomona, CA

- PI: Dr. Erin Questad
- Working as a part of a team to collect, survey, and monitor data and ongoing thesis projects.

- Developing thesis proposal
- California native plant ID and seed collections
- Mentoring undergraduates in lab

Student Research Associate

June 2022 – May 2023

Cal State Long Beach Foundation – Long Beach, CA

- PI's: Dr. Jesse Dillon & Dr. Christine Whitcraft
- Thesis: Assessing the Impacts of the Huntington Beach oil spill on benthic invertebrates

Research Experience

Canopy Structure and Plant Community Ecology

Questad Lab | CPP

August 2023 - Present

Thesis: Measuring Canopy Structure and Thermal Properties of Orchards and Natural Areas using Remote-Sensing

Emphasis: Habitat Suitability and Remote Sensing

Salt Marsh Benthic Invertebrate Community Research

Dillon and Whitcraft Lab | CSULB

June 2022 – May 2023

Mentored and supervised by Dr. Jesse Dillon and Dr. Christine Whitcraft.

- Analysis of invertebrate species affected by Huntington Beach oil spill.
- Taxonomic microscopic identification of benthic invertebrate animals and diversity statistical analysis of invertebrate community.

Presentations

Assessing impacts of the Huntington Beach oil spill on benthic sediment decomposer communities in Talbert Marsh.

Emily Montes, Lauren E. Cross, Christine R. Whitcraft, Ph.D., Jesse G. Dillon, Ph.D.
SACNAS, Society for the Advancement of Chicanos/Hispanics and Native Americans in Science
San Juan, Puerto Rico, October 2022

Assessing impacts of the Huntington Beach oil spill on benthic sediment decomposer communities in Talbert Marsh.

Emily Montes, Lauren E. Cross, Christine R. Whitcraft, Ph.D., Jesse G. Dillon, Ph.D.
California Estuarine Research Society
Costa Mesa, CA, April 2023

Is there a difference between coast live oak herbaceous understory between El Dorado Nature Center and Irvine Regional Park?

Emily Montes, Mackenzie Munguia, Zachary James
Environmental Science and Policy Poster Symposium

Long Beach, CA, May 2023

Assessing impacts of the Huntington Beach oil spill on benthic sediment decomposer communities in Talbert Marsh.

Emily Montes, Lauren E. Cross, Christine R. Whitcraft, Ph.D., Jesse G. Dillon, Ph.D.
Society for Wetland Scientists
Spokane, WA, June 2023

Honors and Awards

NIH BUILD Fellow

June 2022 – June 2023

National Institute of Health

- Selected for a one-year competitive faculty-mentored research training program funded by NIH. This research-intensive program encourages the development of advanced degrees primarily for underrepresented students. NIH's total individual support of approximately \$15,000.

President's Honors List

Spring 2022

- Awarded to students who achieved a 4.0 GPA.

Dean's List with Honors

Fall 2019, 2021, & 2022

- GPA: 3.63 (2021) & 3.50 (2019) & 3.67 (2022)

Outstanding Research Presentation

October 2022

- Awarded to less than 10% of student presenters for their exemplary research and presentation skills at the 2022 SACNAS National Diversity in STEM, in San Juan, PR.

Volunteer and Internships

Cabrillo Coastal Park Survey | Cabrillo Marine Aquarium

November 2022

Research Volunteer

- Conducted marine life surveys three times a year at three different locations to monitor the abundance and diversity of fishes and invertebrates which colonize the Cabrillo marine area.
- Used beach seine to capture all animals in the salt marsh, and inner and outer beach.
- Sort, count, measure, record, and weigh all invertebrates and fish collected.

Bioma Travel | Costa Rica

May 2022-June 2022

Research Volunteer

- Worked with three species of sea turtles (*Lepidochelys olivacea*, *Dermochelys coriacea*, *Chelonia mydas*) to record abundance and nesting time.
- Studied population density of solitary nesting olive ridleys at Ostional beach and determined hatching success, productivity, and mortality rates of hatchlings. As

well as collected data on adult clutch size, measurements, nesting time, and nest depth.

Science Learning Center | CSULB

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Skills

Programs: RStudio, ArcGIS Pro, ENVI, MS Office, Zotero, Adobe Creative Cloud

- Microscopy, sorting, DNA extraction, PCR
- Taxonomic Identification: Marine Invertebrates, California Plants
- Data collection and entry
- Field vegetation sampling
- Vegetation surveys using linear transects.
- Citi Training, Safety Zone Training
- Spanish (Intermediate in reading, writing, speaking)

References

1. Dr. Erin Questad
Professor and Chair of Biological Sciences, CPP
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2. Dr. Ehren Moler
Biology Lecture, Research Associate (Questad Lab), CPP
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3. Dr. Jesse Dillon
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4. Dr. Christine Whitcraft
Professor of Biological Sciences, Director for Environmental Science & Policy, CSULB
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