

Zachary Zirbel

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Education

CSU Monterey Bay – Marina, CA

Bachelor of Science in Marine Science– GPA: 3.2/4.0

Completed bachelor's degree in Marine Science, with a focus in laboratory and field research.

Moss Landing Marine Laboratories (MLML) – Moss Landing, CA

Working towards a Master's Degree in Marine Science

Working within the invertebrate lab, led by Amanda Kahn. Research interests include interspecies relationships, morphology, behavior, and population dynamics within the subtidal zone.

PROFESSIONAL EXPERIENCE

Moss Landing Marine Laboratories (MLML) - Research Mentee

2023-Present

Working alongside faculty at MLML, on a project conducting taxonomic investigation with a deep sea sponge of an unknown species. This process includes sample preparation, taxonomic analysis, as well as microscope photography through traditional microscopes and through scanning electron microscopy. Concluding the physical data collection, a taxonomic report will be drafted. Working alongside graduate students and faculty, working in a laboratory setting provides me with a deeper understanding of what higher education past receiving my bachelors degree can look like. The goal of the project includes presenting our findings at conferences, as well as an official publication of our findings.

Moss Landing Marine Laboratories (MLML) - Research Mentee

2022-2023

Collaborated with a graduate student in the lab dedicated to phycology within MLML, aiding her in the testing of her thesis experiment regarding the effects of variable light on sexual competition in three kelp species. Captured photos and recording data regarding spore development and egg production in kelp species using an inverted microscope. The experiment required near daily observation and recording, and I was given the responsibility to work in the lab by myself, and conduct research vital to the thesis. An official publication for this experiment is in progress.

Seymour Marine Center - Volunteer Educator

2016-2017

Assisted in visitor interaction and education regarding marine organisms and environmental conservation. Practiced interpersonal effectiveness as an educator. Managed tours and hands-on activities, while managing guest safety and boundaries during interaction with live animals.

RELEVANT SKILLS

Interpersonal and Workplace Communication: Professionally trained in conveying information effectively, both orally and in writing.

Public Speaking: Formally trained in public speaking in a professional setting.

Critical and Efficient Authorship: Educated in the skills necessary to read, process, and write professional scientific content.

Lab Safety and Research Equipment: Educated in the operation of heavy research equipment, as well as the required safety protocol. Experienced in chemical safety, traditional microscope photography, and scanning electron microscopy.

NAUI Scientific Diver Certified: Trained from the CSUMB scientific dive team to collect the necessary skills for designing experiments, safely and efficiently collecting data, and analyzing results. Certified for the following: Open water Scuba Diver, Advanced Open Water Diver, Rescue Scuba Diver, Nitrox Diver, Master Scuba Diver, Scientific Scuba Diver.