**Jackson Hoeke**

3114 Crescent Ave. Unit 46 – Marina, CA 93933

(408) 396-3272 jackson.hoeke@sjsu.edu

**Education**

 **Moss Landing Marine Laboratories**

M.S. in Marine Science Expected graduation: May 2023

GPA – 3.77 (As of Sep. 2022) | Good Standing

In-progress Master’s Thesis: Assessing the seasonal impacts of the introduced sponge *Hymeniacidon perlevis* (Porifera: Demospongiae) in the Elkhorn Slough, Advisor: Dr. Amanda Kahn

 **University of Oregon**

B.S.inMarine Biology Graduated June, 2020

GPA – 3.80 | Good Standing | Graduated *Cum laude*

Honors Thesis: Native and introduced hydroids (Cnidaria: Hydrozoa) from the marine and estuarine waters of Coos Bay, Oregon, Advisor: Dr. Craig Young

**Awards**

**University of Oregon**

Marine Biology Valedictorian 2020

**COAST**

COAST Graduate Student Research Award 2021

**Research Experience**

**Graduate Research Project**

**Advised by Dr. Amanda Kahn**

**Summer 2021 – Present**

Self-led research project investigating the biomass, distribution, and life history of the introduced sponge *Hymeniacidon perlevis* in the Elkhorn Slough, CA. Aspects of the project include monthly quadrat sampling to assess sponge area, statistical analysis of monthly sponge area in response to multiple environmental factors, recording and estimating sponge pumping rates to relate sponge biomass to approximate volume of water pumped throughout the slough.

**Graduate researcher on the *R/V Western Flyer***

**Chief Scientist: Dr. Kakani Katija**

**Summer 2021**

1 week MBARI cruise offshore of Monterey Bay assisting with remotely operated vehicle *ROV Doc Ricketts* camera operation, specimen acquisition, and VARS annotation on real-time photos during deployments for specimen collection and testing equipment for visualizing water flow and animal tracking. Collected and deposited live specimens in aquaria for laboratory experiments and future display at the Monterey Bay Aquarium.

 **Graduate researcher on CA Deepwater MPA decadal report**

**P.I. Dr. Amanda Kahn**

**Summer 2020 – Fall 2021**

Analysis of long-term invertebrate community data from ROV surveys in CA Deepwater MPAs. Used R to perform statistical analysis including blocked ANOVA, nMDS, SIMPER, species accumulation curves, diversity metrics to assess invertebrate assemblage changes over time between MPAs and reference sites. Author on final report.

 **Undergraduate researcher on the *R/V Atlantis***

**Chief Scientist: Dr. Craig Young**

**Winter 2020**

Three-week cruise across Gulf of Mexico and Atlantic Margin assisting with *HOV Alvin* specimen collection, processing, and preservation from methane seep sites. Removed specimens from *Alvin* compartments and transferred to temporary aquaria. Assisted in measuring, preparing, dissecting, and preserving specimens for research, and sifted through sediment samples using light microscopy to identify and remove larvae of interest

**Undergraduate researcher for ecological surveys at Lough Hyne, Ireland**

**P.I. Dr. Cynthia Trowbridge**

**Summer 2019**

Two-week survey at Lough Hyne assessing thermocline profile, invertebrates, and algal assemblages. Surveyed for presence/absence of invertebrate species under rocks and in fouling arrays at long-term study sites; logged key invertebrate and algal species abundance with several snorkel transect surveys.

**Undergraduate research project**

**Advised by Dr. Craig Young**

**Spring – Summer 2019**

Self-led research project collecting hydroid specimens through intertidal field work and subtidal dredging. Species were identified using dichotomous keys before preservation via ethanol series. Specimen photos taken using light microscopy and SEM microscopy to identify native and introduced species in Coos County, OR.

**Publications**

 **J. Hoeke**. 2018. *Buccinum strigillatum* in Oregon Shelf Invertebrates\*

 **J. Hoeke**. 2018. *Gorgonocephalus eucnemis* in Oregon Shelf Invertebrates\*

\*Oregon Shelf Invertebrates is an ongoing, in-house, reference publication for the Oregon Institute of Marine Biology. This will be a companion to the Oregon Estuarine Invertebrates (<http://researchguides.uoregon.edu/oei>).

Starr, R., J. Caselle, A.S. Kahn, A. Lauermann, J. Lindholm, B. Tissot, S. Ziegler, C. Bretz, P. Carlson, K. Cieri, **J.** **Hoeke**, C. Jainese, G. Martel, S. McDermott, J. Mohay, and P. Salinas-Ruiz (2022). Monitoring and evaluation of mid-depth rock ecosystems in the California MLPA Marine Protected Area network. Report to Ocean Protection Council, Project R/MPA-48. January 2022. 145 pp.

**Certifications**

**NAUI Open Water SCUBA Diver**

Certification # 4DB19F2

Certified Jan. 31, 2021

**NAUI Nitrox Diver**

Certification # DF3D9CB

Certified Dec. 10, 2021

**Skills**

**AAUS Scientific Diver** Certified 12/10/2021. Experience working underwater for research using CA Reef Check standards, cleaning boats, intakes, and other equipment

**At-Sea Experience** for up to three consecutive weeks working on ROV camera operation and real-time data annotation, dredging, plankton tows, specimen organization, and maintaining safe and effective ship workspaces

**Aquaria husbandry** experience including measuring and feeding larval, juvenile, and adult invertebrates, quarantining individuals when necessary due to disease, monitoring water quality conditions, and keeping aquaria conditions sanitary

**Biological illustration** of organisms from preserved and live specimens. Examples available in catalog <https://www.invertedink.co/catalog>

**Familiarity with major invertebrate phyla** taxonomy, physiology, and ecology

**Microscopy work** using dissection, compound, and SEM microscopy to observe and identify key characteristics and behavior of organisms

**Molecular biology techniques** such as DNA extraction, designing primers, gel electrophoresis, PCR, and gene sequence alignments

**Statistical analysis in R,** including writing functions, graphing data, statistical analysis, and data sharing and management using github and Google Drive

**Public Outreach**

**Speaking** to students at Bellarmine College Preparatory on my experiences and career up to my graduate education

**Volunteering** as a science judge for the 2021 Sea Lion Bowl