

Maddie J. Housh

Curriculum Vitae

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EDUCATION

- 2019 – present **California Polytechnic State University**, San Luis Obispo, CA
M.Sc. Student in Biological Sciences
Advisor: Dr. Sean Lema
- 2013 – 2017 **University of California Santa Barbara (UCSB)**, Santa Barbara, CA
B.Sc. in Aquatic Biology, *cum laude* & Departmental Honors, GPA 3.60
- 2015 **University of Queensland**, Brisbane, Queensland, AUS
Marine Biology & Terrestrial Ecology Program, University of California Education Abroad Program (UCEAP)

FELLOWSHIPS & AWARDS

- 2019 **Honorable Mention**, NSF Graduate Research Fellowship Program
- 2017 **Dean Bazzi Memorial Scholarship**, College of Letters & Science, Department of Ecology Evolution & Marine Biology (EEMB), UCSB
- 2017 **Distinction in the Major**, College of Letters & Science, EEMB, UCSB

PROFESSIONAL & RESEARCH EXPERIENCE

- 2017-present **Laboratory Technician**
Hofmann Lab,
Principle Investigator: Dr. Gretchen Hofmann
- 2016-2017 **Undergraduate Laboratory Assistant**
Hofmann Lab, Department of Ecology, Evolution & Marine Biology, UCSB
Principle Investigator: Dr. Gretchen Hofmann
Worked under the supervision of PI Gretchen Hofmann and Ph.D. students in performing laboratory maintenance, assisting with experiments, and analyzing data.
- 2016 **Undergraduate Researcher**
University of Queensland, Australia, Marine Biology and Terrestrial Ecology, UCEAP
Instructors: Dr. John Hall and Dr. Ian Tibbetts
Participated in lectures, laboratory and field studies, and conducted two independent research projects at Moreton Bay research station on Stradbroke Island, and at Heron Island Research Station on the Great Barrier Reef.

- 2015 **Undergraduate Intern**
Sustainability Department, UCSB
Advisor: Mark Rousseau
Maintained logs of energy and water usage in the UCSB dorms, designed informational posters, and organized events to help raise awareness for sustainability at UCSB.
- 2012 **Student Researcher**
British Columbia Marine Mammal Studies, Broadreach Program, Bamfield Marine Sciences Centre, British Columbia
Instructors: Abbie Moyer and Andrew Quincy-Spees
Participated in a 3-week long educational, research, and camping experience on Vancouver Island, earning academic credits.

MENTORSHIP

- 2018 Avery Desantis, Undergraduate Researcher, UCSB, 6 months
- 2018 Ocean Global Change Biology REU students, UCSB, 2 months

GRANTS IN SUPPORT OF RESEARCH

- 2016 **Undergraduate Research & Creative Activities (URCA)**
College of Letters & Science, UCSB
"Investigating transgenerational effects in the purple urchin, Strongylocentrotus purpuratus"
(\$750)

PRESENTATION OF RESEARCH

- 2017 **Undergraduate Research Colloquium**
College of Letters & Science, UCSB
Poster. *"Investigating transgenerational effects in the purple urchin, Strongylocentrotus purpuratus"*

OUTREACH & INFORMED EDUCATION

- 2017-present **Science educator**, Family Ultimate Science Exploration (FUSE), Center for Science and Engineering Partnerships (CSEP), UCSB
- 2018 **Science educator**, World Oceans Day Festival, June 9, 2018
Sponsored by the Hofmann Laboratory in collaboration with the Santa Barbara Museum of Natural History, Santa Barbara, CA
- 2014 **Docent**, Snowy Plover Docent Program, Coal Oil Point Reserve, Goleta, CA

SERVICE

- 2013 – 2014 **Club Secretary**, The Wildlife Society, UCSB

SKILLS & CERTIFICATIONS

- Laboratory*
- Determination of pH of seawater using Shimadzu UV-1800 spectrophotometer
 - Determination of total alkalinity in seawater via open-cell titration using Mettler Toledo model T50 titrator, following standards set by Professor Andrew Dickson, Scripps Institution of Oceanography
 - DNA and RNA extraction
 - Gel electrophoresis
 - Marine invertebrate culturing (sea urchins)
 - Algae culturing (*Dunaliella salina*)
 - Microscopy (compound, dissection)
 - ImageJ
 - PCR
 - Methylation Sensitive Amplified Polymorphism (MSAP) sequencing

Field **American Academy of Underwater Sciences (AAUS) Scientific Diver**
UCSB, March 2017 (47 scientific dives to date)
Certifying Dive Safety Officer: Eric Hessell
Certification includes CPR, First Aid, Rescue Diver, and NAUI Nitrox

RELEVANT COURSEWORK

Biology of Fishes	General Chemistry	Processes in Oceans
Biometry	Genetics	Science Writing
Ecology	Ocean Waves	Statistics
Evolution	Organic Chemistry	
General Biology	Organic Chemistry Lab	

REFERENCES

Dr. Gretchen Hofmann

Professor & Chair
University of California, Santa Barbara
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Dr. Alice Nguyen

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