

MARK BITTER

Curriculum Vitae

Department of Ecology, Evolution, and Marine Biology
University of California, Santa Barbara
mark.bitter@lifesci.ucsb.edu • (818)-322-7808

Education

2010-2014 **University of California, Santa Barbara**
Bachelors of Science in Aquatic Biology
Departmental Honors Program and Distinction in Major, GPA: 3.5
Senior thesis: *Assessing pH variability in the Santa Barbara Channel and its effect on calcification in coastal marine communities*

Fellowships and Awards

March 2014 **Distinction in Major**- University of California, Santa Barbara
March 2014 **Departmental Honors Program**- University of California, Santa Barbara
Summer 2013 **National Science Foundation**- Research Experience for Undergraduates (NSF-REU)
Hofmann Lab, UC Santa Barbara.

Grants in Support of Research

December 2013 **Undergraduate Research and Creative Activities Grant** (UCSB), "*Assessing pH variability along the Santa Barbara Coastline and its effect on calcification in local marine communities*" (\$750)
May 2013 **Santa Barbara Coastal Fund's Minor Funding Grant**, "*Assessing pH Variability along the Santa Barbara Coastline and its effects on calcification in local marine communities*" (\$1000)

Professional Experience

6/2013-present **University of California, Santa Barbara**
Department of Ecology, Evolution, and Marine Biology
Lab manager/technician: Assist with various projects throughout the lab, including both field and lab-based work. Manage deployment, maintenance, and data quality control of autonomous pH sensors.
Senior thesis research: Designed and conducted a study assessing natural pH variability and its effect on calcification and community structure in coastal communities within the Santa Barbara Channel.
Advisors: Dr. Gretchen Hofmann, Lydia Kapsenberg

Fall 2011 **University of Queensland, Australia**
UC Education Abroad Marine Biology and Terrestrial Ecology Program
Designed and conducted a study examining the changes in coral and algal interactions over varying distances from shore on Heron Island (Great Barrier Reef).
Designed and conducted a research project on North Stradbroke Island in which grazing rates of two species of sea urchin were observed over a temperature gradient.
Advisor: Dr. Ian Tibbetts

09/2014-06/2013 **University of California, Santa Barbara**
Department of Ecology, Evolution, and Marine Biology
Lab Assistant and Scientific Diver for Santa Barbara Coastal, LTER
Advisors: Dr. Dan Reed, Shannon Harrer, Clint Nelson

Research Cruises

July-August 2014 **Moorea Coral Reef Long Term Ecological Research 2014: Linking Reefs with Blue Water**

Collected and processed seawater samples for carbonate chemistry analysis and assisted in chlorophyll *a* and nutrient analyses.

Moorea, Society Islands; UNOLS Ship *R/V Kilo Moana* (12 days)

Chief Scientist: Jim Hench

June 2014

Channel Islands Research Cruise for Acidification Studies

Assisted in CTD casts and water sampling and conducted carbonate chemistry for collected seawater samples.

Santa Barbara Channel; NOAA Ship *R/V Shearwater* (4 days)

Chief Scientist: Jay Lunden

Relevant Coursework

Physical and Chemical Methods for Aquatic Environments, Field Studies in Marine Ecological Physiology, Writing for Science Professionals, Ocean Processes, Earth Systems: Ocean-Atmosphere Interactions, Molecular Evolution, Introduction to Ecology, Genetics, Tropical Ecology, General Biology, Physics, Organic Chemistry, Calculus, Statistics, Environmental Science

Presentations of Research

May 2014 **UC Santa Barbara Undergraduate Research Colloquium**- poster

November 2013 **Western Society of Naturalists** - poster

Professional Affiliations

2013-present Western Society of Naturalists

2013-present Ocean Margins Group for Acidification Studies

2011-present Santa Barbara Coastal, Long Term Ecological Research

Skills and Certifications

Laboratory DNA extraction; PCR; lipid analysis using iatroscan; autonomous pH sensor maintenance and deployment; UV-VIS spectroscopy; equivalence point titrations; IR spectroscopy; agarose gel electrophoresis; pCO₂ system maintenance (for ocean acidification work); Winkler Titrations; Light Microscope; Centrifuge; Pipette and Micro-pipette

Field SCUBA diving: Open Water, Rescue Diver, and Scientifically Certified (all NAUI); Marine Organism Identification; Underwater Mooring Maintenance and Instrument Deployment; CPR and First Aid Certified