**EDUCATION**

**M.S. Marine Science,** Moss Landing Marine Laboratories, CSU Monterey Bay (CSUMB) Present

**B.S. Biology,** CSUMB 2020

**PROFESSIONAL/RESEARCH EXPERIENCE**

**Graduate Student Researcher**, CSUMB 2020-Present

 Advisor: Dr. Alison Haupt

 Thesis: Using genetic tools to assess the relationship between marine parasite

transmission strategy and dispersal capacity

**Lab Assistant II,** UC Davis/Granite Canyon Marine Pollution Studies Laboratory 2021-Present

Supervisor: Bryn Phillips

**Undergraduate Researcher,** CSUMB 2019-2020

Advisor: Dr. Alison Haupt

**Data Assessor**, CSUMB 2018-2019; 2022

Supervisor: Dr. Corin Slown

**Undergraduate Student Collaborator,** CSUMB 2017-2018

 Supervisor: Dr. Corin Slown

**TEACHING/MENTORING EXPERIENCE**

Teaching Associate, CSUMB Introductory Biology Lab Course 2020-Present

Research Mentor, Research Internship in Molecular Ecology (RIME) 2022

Research Mentor, CSUMB Undergraduate Research Opportunities Center (UROC) 2022

Teaching Associate, CSUMB Introductory Biology Discussion Course 2021-2022

Panelist, National Youth Leadership Forum’s Explore STEM program 2021

Instructional Student Assistant, CSUMB Chemistry Course 2017-2019

**SERVICE/LEADERSHIP**

Council Member, CSUMB Graduate Student Council 2022

CSUMB Liaison, Moss Landing Marine Laboratories Student Body 2022

**GRANTS, HONORS, AND AWARDS**

Research Scholarship & Creative Activity Competition (RSCA) 2022

MLML Student Body Wave Award 2022

Myers Trust Award 2022

**PUBLICATIONS**

**Peer Reviewed Journal Articles**

RH Toczydlowski, L Liggins, MR Gaither, TJ Anderson, **RL Barton,** JT Berg, SG Beskid, B

Davis, A Delgado, E Farrell, M Ghoojaei, N Himmelsbach, AE Holmes, SR Queeno, T Trinh, CA Weyand, GS Bradburd, C Riginos, RJ Toonen, ED Crandall. 2021. Poor data stewardship will hinder global genetic diversity surveillance. PNAS. 118(34):e2107934118. doi.org/10.1073/pnas.2107934118

**Mentored Poster Presentations**

G Curiel, **RL Barton**, H Lee, S Sandin, C Wood, A Walter, A Haupt. 2022. How ocean currents affect the dispersal of different island parasites. UROC Symposium

I Paniagua, **RL Barton**, H Lee, C Wood, M Rodriguez, A Haupt. 2022. How different hosts affect the genetic distribution of marine parasites among the Line Islands. UROC Symposium

M Rodriguez, **RL Barton**, H Lee, S Sandin, C Wood, I Paniagua, A Haupt. 2022. Fishing pressures and genetic diversity: parasites across the Northern Islands. UROC Symposium

A Walter, G Curiel, **RL Barton**, H Lee, A Haupt, S Sandin, B Zgliczynski, C Wood. 2022. Ocean currents and climate’s impact on parasite dispersal. UROC Symposium

J Wrinkle, **RL Barton**, H Lee, S Sandin, C Wood, A Arosemena, A Haupt. 2022. Comparing the phylogenetic relationship of trematodes on the Line Islands and French Polynesia to the Eastern and Western hemispheres. UROC Symposium

**RELEVANT SKILLS**

**Computing**

 Python; Statistics, big data analysis

 R; Statistics

 Excel, Microsoft Word, Powerpoint, Outlook, Google Drive Applications

 Navigation of biological databases: GenBank, NCBI, GEOME
 Scientific writing and academic review

 Data management, manipulation, analysis

**Lab**

DNA extraction and protocol optimization

Polymerase chain reaction; program optimization and development

Primer design

Preparation, initiation, maintenance and termination of acute and chronic toxicity tests

Pipetting, serial dilutions, titrations

Water-chemistry analysis (lab meters and probes)

Maintenance of animal cultures

Compound and dissecting microscope operation

Parasite identification

**Field**

 YSI Water Quality Sonde operation and calibration

 Transects and quadrat sampling: terrestrial and intertidal

 Timed scans, ecological monitoring and environmental sampling: terrestrial and intertidal

 Pit-fall and cover board traps