

Elizabeth A Sheets

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CURRICULUM VITAE

EDUCATION

SAN FRANCISCO STATE UNIVERSITY | M.S. BIOLOGY (ECOLOGY, EVOLUTION, & CONSERVATION BIOLOGY)
2013 | San Francisco, CA

UNIVERSITY OF ALABAMA AT BIRMINGHAM | B.S. BIOLOGY
2008 | Birmingham, AL

RESEARCH EXPERIENCE

HOPKINS MARINE STATION OF STANFORD UNIVERSITY | LAB MANAGER
2014 – present | Pacific Grove, CA | PI: Dr. Stephen Palumbi

ROMBERG TIBURON CENTER FOR ENVIRONMENTAL STUDIES | RESEARCH ASSISTANT
2010 - 2013 | Tiburon, CA | PI: Dr. Sarah Cohen

ST. EUSTATIUS NATIONAL PARKS | CONSERVATION PROGRAM ASSISTANT
2009 | Netherlands Antilles

AUBURN UNIVERSITY | NSF INTERNATIONAL RESEARCH EXPERIENCES FOR STUDENTS FELLOW
2008 | Marine Science Station Aqaba, Jordan | PI: Dr. Nanette Chadwick

UNIVERSITY OF ALABAMA AT BIRMINGHAM | RESEARCH ASSISTANT
2008 | Birmingham, AL | PI: Dr. Robert Thacker

PUBLICATIONS

- **Sheets, EA**, PA Warner, SR Palumbi (2018) Accurate population genetic measurements require cryptic species identification. *Coral Reefs*. doi: 10.1007/s00338-018-1679-9
- Traylor-Knowles N, NH Rose, **EA Sheets**, SR Palumbi (2017) Early transcriptional responses during heat stress in the coral *Acropora hyacinthus*. *Biological Bulletin* 232(2).
- **Sheets, EA**, CS Cohen, GM Ruiz, RM Rocha (2016) Investigating the widespread introduction of a tropical marine fouling species. *Ecology and Evolution* 6(8) 2453-2471. [Selected for journal cover]

RESEARCH MENTORSHIP

HOPKINS MARINE STATION OF STANFORD UNIVERSITY

- Mentor & Program Coordinator, Hopkins Marine Station Research Experiences Especially for Freshmen, 2015 - present
- Mentor, Stanford Univ. Vice Provost for Undergraduate Education Scholars (5 students), 2015 - present
- Mentor, CSU Monterey Bay REU Program (2 students), 2016 - 2017
- Mentor, Stanford Univ. Senior Honors Theses (5 students), Summers 2015-2016
- Mentor, Visiting interns from Santa Catalina High School (1), Monterey Peninsula College (2), Middlebury College (1), & UC Santa Cruz (1), 2015 - 2016

SKILLS

PROGRAMMING

Python • Bash • Git
statistical analysis & data visualization in R

FIELD

snorkel • SCUBA
physiology stress tests • taxonomy
microcontrollers • basic plumbing & electronics

LABORATORY

DNA/RNA extraction • PCR/qPCR • cloning
library preparation • Sanger, RNAseq, & whole genome sequencing

TEACHING EXPERIENCE

HOPKINS MARINE STATION OF STANFORD UNIVERSITY

- Guest Lecturer, Biology Core lab, "Molecular Ecology, Forensics, & Phylogeny", 2015-2017
- Presenter, UC Conservation Genomics Workshop, "Calling SNPs from RNAseq data", Sept 2016

SAN FRANCISCO STATE UNIVERSITY

- Teaching Assistant, NSF REU Program, Summers 2011 - 2012
- Research Mentor, Cal Poly High School Teacher And Researcher Program, Summers 2011 - 2012
- Organizer, RTC Summer Researcher Symposium, Summers 2011 - 2012
- Teaching Assistant, Marine Ecology, Springs 2011 - 2012
- Teaching Assistant, Natural History of Invertebrates, 2010

CAHABA RIVER SOCIETY | CLEAN ENVIRONMENTAL EDUCATION PROGRAM

2008-2010 | Birmingham, AL

- Educated over 2,000 K-12 students using interactive, river-based environmental science programs while on canoe trips

AWARDS

- North Pacific Marine Science Organization Early Career Scientist Travel Award, August 2013
- SFSU Dept. Bio. Instructional Related Award, 2011 & 2013
- Romberg Tiburon Center SF Bay Scholarship, 2010 - 2013
- São Paulo School of Advanced Sciences – Evolution Course, funded by São Paulo Research Foundation, August 2012
- California State University Council on Ocean Affairs, Science & Technology Student Travel Award, November 2011
- California State University Council on Ocean Affairs, Science & Technology Student Award for Marine Science Research, Summer 2011
- Smithsonian Tropical Research Institute Pan-American Advanced Studies Institute Fellowship, "Training in Tropical Taxonomy/Advanced Tunicate Biology", funded by NSF, June 2011
- NSF International Research Experiences for Students Program - Auburn University & Jordan Marine Station, "Population dynamics and metabolic interactions between giant sea anemones and symbiotic anemonefish on Red Sea coral reefs", Summer 2008

PRESENTATIONS

- **Sheets, EA**, PA Warner, and SR Palumbi. Cryptic diversity unpredictably affects measurements of population differentiation in corals. Oral presentation. International Coral Reef Symposium. Honolulu, HI. June 2016.
- **Sheets, EA**, GM Ruiz, RM Rocha, and CS Cohen. Global population structure of the widely introduced colonial ascidian *Botrylloides nigrum*. Oral presentation. International Conference on Marine Bioinvasions. Vancouver, British Columbia, Canada. August 2013.
- **Sheets, EA**, GM Ruiz, RM Rocha, and CS Cohen. Global population structure of the widely introduced colonial ascidian *Botrylloides nigrum*. Poster presentation. Society for Integrative and Comparative Biology Annual Meeting. San Francisco, CA. January 2013.
- **Sheets, EA**, GM Ruiz, RM Rocha, and CS Cohen. Cohen. Global population structure of the widely introduced colonial ascidian *Botrylloides nigrum*. Poster presentation. São Paulo School of Advanced Sciences-Evolution. Ilhabela, São Paulo, Brazil. August 2012.
- **Sheets, EA**, GM Ruiz, RM Rocha, and CS Cohen. Global population structure of the colonial ascidian *Botrylloides nigrum*. Oral presentation. Romberg Tiburon Center for Environmental Studies Seminar Series. Tiburon, CA. May 2012.
- **Sheets, EA**, GM Ruiz, and CS Cohen. Global population structure of the colonial ascidian *Botrylloides nigrum*. Poster presentation. Western Society of Naturalists Annual Meeting. Vancouver, WA. November 2011.
- **Sheets, EA** and CS Cohen. Global population structure of the colonial ascidian *Botrylloides nigrum*. Oral presentation. Smithsonian Tropical Research Institute - Bocas del Toro Research Station. Bocas del Toro, Panama. June 2011.
- **Sheets, EA** and NE Chadwick. Anemonefish population dynamics: applications to models of sustainable harvest. Poster presentation. UAB Dept. of Biology, Birmingham, AL. December 2008.
- **Sheets, EA** and NE Chadwick. Anemonefish population dynamics: applications to models of sustainable harvest. Oral presentation. Jordan Marine Science Station. Aqaba, Jordan. June 2008.

OUTREACH

- Monterey Bay Aquarium Young Women in Science Program, 2015 – present
- Panel Scientist, Polar-ICE Symposium, CSU Monterey Bay, March 2017
- Scientist, Invasive Tunicate Network Citizen Science Bioblitz with the Smithsonian Marine Bioinvasions Lab in Ketchikan, Alaska, Sept. 2013
- LIMPETS Long-term Monitoring Program and Experiential Training for Students, 2011-2012
- Science Judge, Sea Lion National Ocean Sciences Bowl, 2010-2013
- Exhibit Scientist, Bay Area Science Festival 2012- 2013
- Tournament Director, Huckraiser Ultimate Disc Benefit Tournament for the Cahaba River Society CLEAN Environmental Education Program, 2010

TRAINING

- Software Carpentry, Stanford University, August 2017
- Python Programming Workshop, Stanford University, November 2014
- São Paulo School of Advanced Sciences - Evolution course, Ilhabela, Brazil, August 2012
- Advanced Tunicate Biology and Training in Taxonomy, Smithsonian Tropical Research Institute Pan-American Studies, June 2011

FIELD WORK

CERTIFICATIONS

- Wilderness First Aid, Wilderness Medicine Training Center, March 2018
- Dept. of Interior and National Association of Safe Boating Law Administrators Motorboat Operator Training Course, Romberg Tiburon Center Marine Operations, January 2012
- Professional Association of Diving Instructors Advanced Open Water Diver Certification, 2009

FIELD EXCURSIONS

- Palau, 2017 - present: GIS analysis of satellite imagery to identify candidate patch reefs, field surveys to confirm candidate patch reefs, species identification and tagging for long-term physiological monitoring, temperature stress assays in basic field laboratory, & field collections of coral samples for DNA and RNA analysis
- Central California Coast, 2014 - present: long-term genetic monitoring of rocky intertidal barnacle species
- Ofu, American Samoa, 2015 - present: temperature stress assays, long-term monitoring of coral individuals, bleaching surveys, field collections for DNA and RNA analysis
- Ischia, Italy, 2017: coral sample collections from caves with natural volcanic seeps
- Ketchikan, Alaska, 2013: marina surveys for introduced and invasive invertebrate species, training citizen scientists for Smithsonian Environmental Research Center Plate Watch Program
- Tampa Bay, Florida, 2012: collection and identification of fouling invertebrates for the Smithsonian Environmental Research Center Plate Watch Program
- Bocas del Toro, Panama, 2011: invertebrate species identification in the field, preservation for taxonomic analysis, species surveys in mangrove forests & marinas
- St. Eustatius, Netherlands Antilles, 2009: monitoring nesting activities of local sea turtle population, transplanting at-risk turtle nests, REEF check surveys
- Aqaba, Jordan, 2008: tagging and collecting anemones and their symbiotic fish using SCUBA, fish abundance and size surveys for population models