

Alexis Floback, Ph.D. Candidate

University of Southern California- Department of Marine and Environmental Biology

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EDUCATION

Ph. D. Biology, University of Southern California 2019- Present
B.S. Marine Biology, Biology, Nova Southeastern University 2014-2018
Minors: Chemistry, Marine Ecology
Graduated with Honors

TEACHING EXPERIENCE

Teaching Assistant, University of Southern California 2019-2022
Fall 2019, 2020: *Organismal Biology and Evolution (Rating in Instructional Practices: 3.55/4)*
Spring 2022: *Methods in Marine Biology and Biological Oceanography (Rating: 4/4)*
- Maymester course on Catalina Island at the Wrigley Marine Science Center
- Development of laboratory or fieldwork experiments, handbook, and assignments
- Included day research vessel trips for plankton sampling and CTD casts
Laboratory/Teaching Assistant, Nova Southeastern University 2015-2018
Organic Chemistry, Biochemistry, Analytical Chemistry, Physics I, Physics II

PUBLICATIONS

Floback, A. E., & Moffett, J. W. (2021). Rare earth element distributions in the Arabian Sea reveal the influence of redox processes within the oxygen deficient zone. *Chemical Geology*, 577, 120214.

Floback AE, Florea K, Thrash JC, Webb EA (2020). *Vulcanococcus* sp. Strain Clear-D1 metagenome-assembled genome reconstructed from a cyanobacterial enrichment culture. *Microbiology Resource Announcements*, 9(49).

PRESENTATIONS

Oral

Floback AE, Bianchi D, Chace P, Reimers C, Moffett JW. (2022). Trace metal distributions along the Newport Hydrographic Line reveals that a combination of redox chemistry and subsurface transport leads to high spatial and temporal variability. *Ocean Sciences Meeting*. Virtual

Poster Presentations

Floback AE, Thrash JC, Moffett JW. (2021). Trace metal clean culturing of SAR11. *Southern California Geobiology Symposium*. Virtual

Floback AE, Bolster KM, Bian X, Moffett JW, John S. (2020). The cerium anomaly and manganese cycling processes in oxygen deficient zones. *Ocean Sciences Meeting*. San Diego, CA

Diwaker P, Fernandez M, **Floback AE**, Perez H, Manzano N, Caplow T. (2018) Analysis of Carcinogens and Toxins Using LIBS/SIBS. *SciX Meeting*. Atlanta, GA

Diwaker, P, Perez H, Fernandez M, **Floback AE**, Manzano N, Caplow T. (2018). Informal STEM Education through a Science Museum Using Optics and Spectroscopy. *SciX Meeting*. Atlanta, GA

FIELD EXPERIENCES

Cruises

FeTSh: Iron Transport Shuttle aboard the *R/V Oceanus* (Newport-Newport, OR)

OC2102A: March-April 2021 7 days

OC2107A: July-August 2021 20 days

PROFESSIONAL DEVELOPMENT

Courses

GEOTRACES Summer School in Bremerhaven, Germany 2022

MENTORSHIP

Undergraduate

Kourtney Burgess (CSUMB Student via SWMS Mentorship program) 2020-present

DEPARTMENT INVOLVEMENT

- 2022- Present *DEI Steering Committee.*
- Help determine direction and breadth of DEI sub committees
- 2022- Present *President for Marine and Environmental Biology Student Government Association.*
- Liaison between the MEB graduate students and faculty
 - Includes attending faculty meetings and advocating on behalf of the students
- 2021, 2022 *Marine and Environmental Biology Open House Planning Committee.*
- Plan an Open House to advertise the MEB program and help demystify the process of applying to graduate school
- 2021- 2022 *Mentorship Co-Chair.*
- Organizing mentorship pairings between first year and older graduate students
- 2021- 2022 *Field Safety Committee.*
- Disseminating results from survey on MEB student experiences with fieldwork
 - Developing resources to implement field safety (Code of Conduct, Emergency Action Plans, Pre and Post fieldwork conversation guides)
- 2020- 2022 *PhD Liaison for Women in Science and Engineering (WiSE).*
- Plan and execute events for professional development aimed at PhD students
- 2020- 2021 *Secretary for Marine and Environmental Biology Student Government Association.*
- 2020- Present *USC MEB Social Media and Website Committee.*
- 2020, 2021, 2022 *Orientation planning committee.*
- Plan a full day orientation for incoming students to help address barriers to starting graduate school

AWARDS

2021	Outstanding Teaching Assistant Award	
2021	Ph.D. Academy Scholarship and Research Fund Award (\$500)	

SYNERGISTIC ACTIVITIES

<i>Summer Online Interactive/Discussion Global Environmental Microbiology</i>	
Panelist for “Your Journey to Graduate School”	June 2021
<i>The Ocean Institute</i>	
Panelist for “So you Love the Ocean, Now What?”	March 2021

Memberships: The Oceanography Society; Tri Beta Biological Honors Society; Rho Rho Rho Marine Biology Honors Society; Delta Epsilon Iota Academic Honors Society

PROFESSIONAL EXPERIENCE

Quality Control Laboratory Technician, Nutranext	2018-2019
<i>Mineral analysis by ICP-OES, Protein analysis by Rapid Nitrogen Analysis</i>	
Carcinogen Research Assistant, Phillip and Patricia Frost Museum of Science	2017-2018
<i>Laser-Induced Breakdown Spectroscopy, public engagement</i>	
Divemaster, Nova Southeastern University Academic Diving Program	2016- 2018
<i>Assistant for PADI Open Water, Advanced, Rescue Diver classes, dive leader</i>	
Fisheries Research Assistant, Nova Southeastern University	2015-2016
<i>Fish aging based on otoliths and scales</i>	
Camp Counselor, Seacamp Association, Inc.	2016
<i>Windsurfing instructor, Sailing, science, SCUBA, and snorkeling assistant</i>	

PUBLIC OUTREACH

Best Buddies International	2010- 2020
<i>Social inclusion of individuals with intellectual and developmental disabilities</i>	
Project Aware	2016- 2018
<i>Sponsored monthly SCUBA cleanups of a dive site</i>	

CERTIFICATIONS

<i>Diver’s Alert Network</i> Basic Life Support and First Aid	2016- Present
<i>Diver’s Alert Network</i> Emergency Oxygen Provider	2016- Present
<i>Professional Academy of Diving Instructors</i> Divemaster	2016- Present
<i>Boat U.S. Foundation</i> Florida Safety Boater with U.S. Coast Guard Captain’s Workshop	2016- Present
<i>Florida Master Naturalist Program</i> Master Naturalist	2015- Present