

CURRICULUM VITAE

<p>NAME: Megan Anjuli Rippy</p> <p>CONTACT: Occoquan Watershed Monitoring Lab, Manassas, VA mrippy@vt.edu</p>	<p>CURRENT POSITION TITLE: Assistant Professor: Civil and Environmental Engineering</p>
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INSTITUTION	DEGREE	YEAR(s)	FIELD
University of California Santa Cruz Santa Cruz, California, USA	BS	2001 - 2005	Marine Biology
University of California San Diego – Scripps Institution of Oceanography (SIO), La Jolla, California, USA	Masters	2005 - 2011	Marine Biology
University of California San Diego – Scripps Institution of Oceanography (SIO), La Jolla, California, USA	PhD	2005 - 2012	Biological Oceanography

RESEARCH INTERESTS: My research interests include: coastal, estuarine, and riverine water quality, and fate and transport modeling of contaminants (pathogens, fecal indicators, micropollutants, etc). I am interested in both natural and engineered systems, with an emphasis on sustainable, green engineering designs with a biological component (e.g., constructed wetlands and biofilters). I am also deeply vested in issues related to urban water supply and demand. This includes 1) identifying climatic vs. management-related drivers of demand and innovative methods for demand analysis (e.g., wavelets) and 2) holistic evaluation of natural treatment systems from both a water demand management and social-ecological co-benefit perspective.

RESEARCH AND PROFESSIONAL EXPERIENCE:

MBARI Internship (2004). Population structure of hydrothermal vent symbionts.

Researcher, undergraduate (2004). *Spirobranchus giganteus*; Reproductive barriers & polymorphism.

Researcher, undergraduate (2005). Natural Selection in *Mytilus californianus*: a study of antimicrobial peptides.

Researcher, graduate (2005-2006). Luminex; A high throughput genetic method for plankton identification.

Research Assistant, graduate (2006): SCOOS HB06: Surfzone dynamics and beach bacterial pollution

Researcher, graduate (2008-2009): Sediment fate & transport study: Source dynamics of fecal indicator bacteria at Border Field state park.

Researcher, graduate (2009): IB09: Patch dynamics of nutrients, *Enterococcus*, & chlorophyll near the Tijuana river

Researcher, postdoctoral (2012): The effects of the bloom forming dinoflagellate *Lingulodinium*

polyedrum on the mortality of *Enterococcus faecium* in seawater: mortality rates, water quality impacts, and monitoring implications.

Researcher, specialist (2013): UCI PIRE Layer 1; Improving pollutant removal in biofilters and streams.

Researcher, postdoctoral (2013-2017): UCI PIRE Layer 1; Emphasis: surface microlayers in LID systems, pollutant removal trade-offs associated with novel engineering design, fate/transport modeling of conservative tracers in urban estuaries, and timeseries analysis of urban water demand.

Researcher, postdoctoral (2017-2018): UCI MRPI; Emphasis: ecosystem services and disservices in green stormwater infrastructure

Researcher, assistant project scientist (2018): UCI MRPI; Emphasis: fate/transport modeling of biofilters, ecosystem services and disservices in green stormwater infrastructure, and coupled human-natural systems

Assistant Professor, Virginia Tech (2018 - present)

IRB APPROVED HUMAN SUBJECTS STUDIES (1)

Lead Researcher: **Rippy, M.A.** - HS# 2017-3998, "UC Reliance #2817: Fighting Drought with Stormwater: The Perceived Services and Disservices of Natural Treatment Systems (2017)

GRANTS (6):

Rippy, M. A. (Author) "Surfzone Bacterial Pollution: Biological Mediation of Bacterial Inactivation" Michael M. Mullin Fund (**\$5,000** July 5, 2007)

Rippy, M. A. (Author) "Sediment Sampling in Support of the Tijuana Sediment Fate and Transport Demonstration Project" California Department Boating and Waterways (**\$100,000** October 9, 2008 – October 31, 2009).

Feddersen, F. (*PI*); Franks, P. J. S. (*PI*); Guza, R. T. (*Author*); **Rippy, M. A. (Author)**; Omand, M (*Author*). "Patch Dynamics of Nutrients, Fecal Indicator Bacteria and Chlorophyll near the Tijuana River." California Sea Grant (**\$240,277** December 8, 2008 – present).

Asch, R. (*Author*); Cawood, A. (*Author*); Davidson, P. (*Author*); Goldstein, M. (*Chief Scientist*); Ohman, M. (*PI*); Powell, J. (*Author*); **Rippy, M. A. (Author)**; Taniguchi, D (*Author*). "Distribution and Ecological Consequences of Plastic Debris in the North Pacific Gyre (SEAPLEX)" University of California Ship Fund Committee & Project Kaisai (**\$505,000** August 9, 2009 - August 21, 2009).

Rippy, M. A. (Author) "Surfzone Bacterial Pollution: the Survival of Fecal Indicator Bacteria in a Phytoplankton Soup" California Department of Boating and Waterways Oceanography Program (**\$17,400** August, 2012 – 2013)

Grant, S. B. (*PI*); Ambrose, R. (*Co-PI*); Holden, T. (*Co-PI*); Levin, L. (*Co-PI*); Mehring, A. (*Author/Co-Investigator*); **Rippy, M. A. (Author/Co-Investigator)**; Walker, S. (*Co-PI*); Winfrey, B. (*Author/Co-Investigator*). "Fighting Drought With Stormwater: From Research to Practice". A Multicampus Research Proposal (MRPI) University of California Research Initiatives. (**\$1,900,000** December

2016).

Venkatasubramanian, N. (*UCI PI*); Grant, S. B. (*UCI Co-PI*); Feldman, D. (*UCI Co-PI*); Hsu, K. (*UCI Co-PI*); Mehrotra, S. (*UCI Co-PI*); **Rippy, M. A.** (*VT PI*). CISTERN: Community-based Intelligent StormwaTER Networks. Cyber-Physical Systems Frontiers, NSF. submitted

PUBLICATIONS and SUBMITTED MANUSCRIPTS (17): *indicates corresponding author

Rippy, M. A.*; Franks, P. J. S.; Feddersen, F.; Guza, R; Moore, D. F. Physical dynamics controlling variability in nearshore fecal pollution: Fecal Indicator Bacteria as passive particles, *Marine Pollution Bulletin*. **2013**. *66*, 151-157.

Rippy, M. A.*; Franks, P. J. S.; Feddersen, F.; Guza, R; Moore, D. F. Factors controlling variability in nearshore fecal pollution: is mortality important? *Marine Pollution Bulletin*. **2013**. *66*, 191-198.

Rippy, M. A.*; Franks, P. J. S.; Feddersen, F.; Guza, R; Warrick, J. A. Beach nourishment impacts on bacteriological water quality and phytoplankton bloom dynamics. *Environmental Science and Technology*. **2013**. *47*, 6146-6154.

Rippy, M. A., Stein, R., Sanders, B., Davis, K., McLaughlin, K., Skinner, J., Kappeler, J., Grant, S. B.* Small drains, big problems: the impact of dry weather runoff on shoreline water quality at enclosed beaches. *Environmental Science and Technology*. **2014**. *48*, 14168-14177.

Rippy, M. A.* Meeting the Criteria: linking biofilter design to fecal indicator bacteria removal. *WIREs Water*. **2015**. *2*, 577-592. DOI:10.1002/wat2.1093.

Azizian, M.; Grant, S. B.*; Kessler, A.; Cook, P.; **Rippy, M. A.**; Stewardson, M. Bedforms as biocatalytic filters: a pumping and streamline segregation (PASS) model for nitrate removal in permeable sediments. *Environmental Science & Technology*. **2015**. *49*, 10993–11002
DOI:10.1021/acs.est.5b01941.

Askarizadeh, A.; **Rippy, M.A.**; Fletcher, T.; Feldman, D.; Peng, J.; Bowler, P.; Mehring, A.; Winfrey, B.; Vrugt, J.; AghaKouchak, A.; Jiang, S.; Sanders, B.; Levin, L.; Taylor, S.; Grant, S.B.* From Rain Tanks to Catchments: Use of Low-Impact Development to Address Hydrologic Symptoms of the Urban Stream Syndrome. *Environmental Science and Technology*. **2015**, *49*, 11264-11280.
DOI:10.1021/acs.est.5b01635.

Rippy, M. A.*; Weiden, L.; Cooper, W.; Deletic, A.; Grant, S. B. Microlayer enrichment in natural treatment systems (NTS): linking the surface microlayer to urban water quality. *WIREs Water*, **2016**, *3*(2), 269-281. DOI:10.1002/wat2.1128.

Walsh, C.J.*; Booth, D.B.; Burns, M. J.; Fletcher, T. D.; Hale, R.L.; Hoang, L. N.; Livingston, G.; **Rippy, M.A.**; Roy, A.H.; Scoggins, M.; Wallace, A. Principles for urban stormwater management to protect stream ecosystems. *Freshwater Science*. **2016**, *35*(1), 398-411.

Mehring, A.S.*; Hatt, B.E.; Kraikittikun, D.; Orelo, B.D.; **Rippy, M.A.**; Grant, S.B.; Gonzalez, J.P.; Jiang, S.C.; Levin, L.A. Soil invertebrates in Australian rain gardens and their potential roles in storage and processing of nitrogen. *Ecological Engineering*, **2016**, *97*, 138-143.

Hemati, A.; **Rippy, M. A.***; Grant, S. B.; Davis, K.; Feldman, D. Deconstructing demand: the anthropogenic and climatic drivers of urban water consumption. *Environmental Science and Technology*, **2016**, *50*, 12557-12566. DOI: 10.1021/acs.est.6b02938.

Peng, J.*; Cao, Y.*; **Rippy, M. A.**; Afrooz, ARM N.; Grant, S. B. Indicator and Pathogen Removal by Low Impact Development Best Management Practices. *Water*. **2016**, 8, 12-24.

Rippy, M. A.; Deletic, A.; Black, J.; Aryal, R.; Lampard, J-L., Tang, J.; McCarthy, D.; Kolotelo, P.; Sidhu, J.; Gernjak, W.* Pesticide occurrence and spatio-temporal variability in urban run-off across Australia. *Water Research*. **2017**, 115, 245-255.

Parker, E. A.; **Rippy, M. A.**; Mehring, A.; Winfrey, B.; Ambrose, R. F.; Levin, L. A.; Grant, S. B.* The predictive power of clean bed filtration theory for fecal indicator bacteria removal in biofilters. *Environmental Science and Technology*. **2017**, 51, 5703–5712. DOI: 10.1021/acs.est.7b00752

Azizian, M.; Boano, F.; Cook, P. L. M.; Detwiler, R. L.; **Rippy, M. A.**; Grant, S. B.* Ambient groundwater flow diminishes nitrate processing in the hyporheic zone of streams. *Water Resources Research*. **2017**, 53, 3941–3967.

Grant, S. B.* Azizian, M., Cook, P., Boano, F., **Rippy, M. A.** Factoring physics into local and global assessments of nitrogen pollution. *Science*, 359 (6381), 1266-1269.

Huang, X.¹; **Rippy, M. A.**¹; Mehring, A. S.; Winfrey, B. K.; Jiang, S. C.*; Grant, S. B. Shifts in dissolved organic matter and microbial community composition are associated with enhanced removal of fecal pollutants in urban stormwater wetlands *Water Research*. **2018**, 137, 310-323.

Grant, S. B.*; Azizian, M.; Cook, P., Boano, F., **Rippy, M. A.** Heed thy Speed Limit! Under Review in Science

Duong, K.; Grant*, S. B., Pierce, G., Vrugt, J. A.; Feldman, D.; **Rippy, M. A.**; Zanetti, E.; McNulty, A. State emergency proclamations and the built environment drive participation in a “Cash for Grass” water conservation program. *In prep*

Grant, S.B.*; **Rippy, M. A.**; Duong, K.; Feldman, D.L.; Peel, M.; Petersen, T.; AghaKouchak, A.; McBride, M.; Ravelico, J.; Davis, K. What makes an urban water system resilient? *In prep*

Askarizadeh, A.; **Rippy, M. A.**; Feldman, D.; Pettigrove, V.; Sanders, B.; Sengupta, A.; Azizian, Kellar, C.; Grant, S. B.* Ecosystems on the Edge: In-stream treatment and watershed nitrate management. *In prep*.

PRESENTATIONS (19):

Rippy, M. A.; Jones, J.; Vrijenhoek, R. C.; ITS Amplification of Vent Tubeworm Symbionts: Testing PCR Fidelity. MBARI Intern Seminar, **2004**, California.

Rippy, M. A.; Feddersen F.; Leichter, J.; Omand, M.; Moore, D. F.; McGee, C. D.; & Franks, P. J. S. Spatio-Temporal Variability in Fecal Indicator Bacteria Concentrations at Huntington Beach: Connections to Physical Forcing. American Geophysics Union Joint Assembly, **2007**, Mexico.

Rippy, M. A.; Warrick, J.; Guza, R.; & Franks, P. J. S. The Ecological Implications of a San Diego Beach Nourishment: Nutrients, Phytoplankton, and Fecal Indicator Bacteria. Ocean Sciences, **2010**, Oregon.

Rippy, M. A.; Franks, P. J. S; Feddersen, F.; & Guza, R. Spatio-Temporal Variability of Nearshore Fecal Indicator Bacteria: the relative importance of fluid dynamics and extra-enteric bacterial mortality. Ocean Sciences, **2012**, Utah.

- Rippy, M. A.** (Invited speaker); Franks, P. J. S; Feddersen, F.; & Guza, R. Physical and Biological Dynamics of Surfzone Bacterial Pollution: Sources, Transports, and Survivorship Mechanisms. SCCWRP, **2012**, California.
- Rippy, M. A.** (Invited speaker); Franks, P. J. S; Feddersen, F.; & Guza, R. Physical and Biological Dynamics of Surfzone Bacterial Pollution: Fluid Dynamics vs. Mortality. IGMPS Winter Seminar Series, UCSB, **2013**, California.
- Rippy, M. A.** Optimized Water Sensitive Urban Design: Trade-offs in Pollutant Removal Efficiency. California Stormwater Quality Association (CASQA), **2013**, Lake Tahoe, CA.
- Rippy, M. A.**; Weiden, L.; Cooper, W.; Deletic, A.; McCarthy, D.; Grant, S. B. Micropollutants as hot-spots in low impact development (LID) systems: linking the surface microlayer to urban water quality. 3rd Symposium on Urbanization and Stream Ecology, **2014**, Portland OR.
- Rippy, M.A.**; Deletic, A.; Gernjak, W. Urban stormwater quality: linking pesticide variability to our sustainable water future. American Geophysical Union Fall Meeting, **2015**, San Francisco, CA.
- Rippy, M.A.** Watershed Management for a Socially and Ecologically Sustainable Future. *University of Florida Faculty Candidate Seminar*, **2016**, Gainesville, FL.
- Rippy, M.A.** Human and Environmental Health Microbiology and our Sustainable Urban Water Future. *University of Cincinnati Faculty Candidate Seminar*, **2016**, Cincinnati, OH.
- Rippy, M.A.** Watershed Management for a Socially and Ecologically Sustainable Future. *University of Cincinnati Faculty Candidate Seminar*, **2016**, Cincinnati, OH.
- Rippy, M.A.** Coastal Ecosystem Modeling Provides Insights for Our Sustainable Urban Water Future. *University of Central Florida Faculty Candidate Seminar*, **2016**, Orlando, FL.
- Rippy, M.A.** The Richter Scale of Reduction: decoupling management and climatic related drivers of water conservation behavior. European Geosciences Union General Assembly, **2016**, Vienna, Austria.
- Rippy, M.A.** Drivers of demand: a wavelet based approach for deconstructing climatic and anthropogenic features of urban water demand in Melbourne, Australia. *Western Water*, **2016**, Victoria, Australia.
- Rippy, M.A.** An ecological framework for plant selection in biofilters. The California Stormwater Quality Association (CASQA), **2016**, San Diego, California.
- Rippy, M.A.** (Invited Speaker) Universal Adaptive Strategy Theory: Bringing “Bio” to the Forefront of Biofilter Design. *Localizing California Waters*, **2016**, Yosemite, California.
- Rippy, M.A.** The Water Sensitive City: A Coupled Human-Natural Systems Perspective, *Northeastern University Faculty Candidate Seminar*, **2017**, Boston, MA.
- Rippy, M.A.** The Path to the Water Sensitive City is Paved with Good Intentions, *University of Florida Faculty Candidate Seminar*, **2017**, Gainesville, Florida.
- Rippy, M.A.** The Water Sensitive City: Wavelets and Water Demand, *Utah State University Faculty Candidate Seminar*, **2017**, Logan, Utah.
- Rippy, M. A.** The water sensitive city and our journey towards water 4.0, Virginia Tech Faculty

Candidate Seminar, **2018**, Blacksburg, VA.

Rippy, M. A. A Tale of Two Cities: evolutionary trajectories of urban water demand, ACS, **2018**, New Orleans, LA.

POSTERS (10):

Rippy, M. A.; Ciglar, A.; Grant, S. B. Are fecal indicator bacteria like salt?: conservative tracer modeling and resistor theory in Newport Bay, California. Ocean Sciences, **2014**, Honolulu, HI.

Moussavi-aghdam, A.; **Rippy, M. A.** Structural equation modeling of stormwater biofilters. UROP: Undergraduate Research Symposium, **2015**, Irvine, CA.

Rippy, M. A. Meeting the criteria: linking biofilter design to fecal indicator bacteria removal and our sustainable water future. Water Resource Sustainability Issues on Tropical Islands, **2015**, Honolulu, HI.

Parker, E.A., **Rippy, M. A.**, Mehring, A.S., Winfrey, B.K., Grant, S.B., Vrugt, J.A., Hatt, B.E. Treating stormwater with green infrastructure: plants, residence time distributions, and the removal of fecal indicator bacteria. American Geophysical Union Fall Meeting, **2015**, San Francisco, CA.

Ciglar, A., **Rippy, M.A.**, Grant, S.B. Modeling storm drain pollution in Newport Bay. American Geophysical Union Fall Meeting, **2015**, San Francisco, CA.

Hemati, A. **Rippy, M.A.**, Davis, K. Grant, S.B. Dealing with drought: decoupling climatic and management-related drivers of water conservation behavior. American Geophysical Union Fall Meeting, **2015**, San Francisco, CA.

Parker, E.A., Grant, S.B., **Rippy, M. A.**, Mehring, A.S., Winfrey, B.K., Vrugt, J.A., Hatt, B.E. Fecal Indicator Bacteria Removal in Aging Biofilters: Investigating Residence Time Distributions and Plant Effects. Localizing California Waters, **2016**, Yosemite, CA.

Azizian, M., **Rippy, M. A.**, Grant, S. B. Impacts of Urbanization on Nitrate Processing in Streams: Insights from a Simple Process-Based Model. Localizing California Waters, **2016**, Yosemite, CA.

Hemati, A. **Rippy, M.A.**, Grant, S.B., Davis, K., Feldman, D. Deconstructing Demand: The Anthropogenic and Climatic Drivers of Urban Water Consumption. Localizing California Waters, **2016**, Yosemite, CA.

Askarizadeh, A. **Rippy, M.A.**, Grant, S.B. From Rain Tanks to Catchments: Use of Low Impact Development to Address Hydrologic Symptoms of the Urban Stream Syndrome. Localizing California Waters, **2016**, Yosemite, CA.

AWARDS:

Award (2001-2005): UCSC Regent Scholar.

Membership (2002-present): National Society of Collegiate Scholars.

Award (2005): College Honors & Highest Honors in the Major (Marine Biology)

Award (2005): Thesis Honors - (Natural selection in *M. californianus*: a study of antimicrobial peptides)

American Geophysics Union Joint Assembly Outstanding Student Paper Award for talk titled: Spatio-Temporal Variability in Fecal Indicator Bacteria Concentrations at Huntington Beach: Connections to Physical Forcing (2007).

Award (10/1/07 – 3/31/08): Stout Fellowship: \$13,580.

TEACHING/ADVISING (Recent):

1) I am a recurrent guest lecturer in the graduate class Urban Water Sustainability at UCI (past 4 years), teaching 1-4 lectures per quarter. I also guest lecture for UCI's undergraduate Probability and Statistics course and assist with the computer-intensive aspects of that course (e.g., coding problem sets in Matlab or R).

2) Between 2013 and 2017, I co-developed a yearly, 6 week interdisciplinary and international undergraduate program with a sustainable water focus: Undergraduate PIRE Program Down Under. The program involves 2 weeks of lectures in the US (co-led), 2 weeks of data collection in Australia (co-led), and 2 weeks of data analysis back in the US (led by myself).

Lectures Delivered for UPP (2013):

“Measuring TSS, chlorophyll, nutrients, and PAR in wetlands”
“Non parametric statistical tests and bootstrap methods”
“Principal Component Analysis and Generalized Linear Models”
“Communicating Science: talks, posters, and papers”
“Data Analysis: MLR & Virtual Beach”

Lectures Delivered for UPP (2014):

“Pollutant Removal in Biofilter Systems: are there trade-offs?”
“Measuring Physical and Chemical Water Quality Parameters”
“Advanced Statistical Tools for Data Analysis”
“Communicating Scientific Findings in Written and Oral Forms”

Lectures Delivered for UPP (2015):

“Pollutant Removal in Stormwater Biofilters: Mechanisms and Trade-offs.”
“Advanced Statistical Tools for Data Analysis: An Introduction to Bootstrap”
“Advanced Statistical Tools for Data Analysis: Structural Equation Modeling”
“Computer Programming in Matlab and R”
“Communicating Scientific Findings in Written and Oral Forms”

Lectures Delivered for UPP (2016):

“Meeting the Criteria: Mechanisms of FIB Removal in Stormwater Biofilters”
“Urban Stormwater Quality: Pesticide Variability and Management Implications”
“Advanced Statistical Tools for Data Analysis: Structural Equation Modeling”
“Evaluating Human and Environmental Co-benefits of Green Infrastructure”
“Computer Programming in Matlab and R”
“Hands-On Data Analysis: principal component analysis, structural equation models, & MLR”

UPP Undergraduate Students Mentored (2013):

Maria Castillo (UCI): Now a *Lab Assistant* at the NRG Oncology Biospecimen Bank
Kimberly Duong (UCLA): Now a *graduate student* at UC Irvine

Norma Galaviz (UCI): Now a *civil engineering intern* at Tetra Tech
Edgar Gomez (UCI): Now a *graduate student* at UC Irvine
Amanda Jimenez (UCI): Now an *odor panelist* at Aerotek
Garfield Kwan (UCSD): Now a *graduate student* at the UC San Diego, SIO
Ava Moussavi-Aghdam (UCI): Now a *graduate student* at UC Irvine
Emily Parker (UCLA): Now a *graduate student* at UC Irvine
Samuel Zabb-Parmley (UCLA): Now an *intern engineer* at KPFF Consulting Engineers
Cameron Patel (UCI): Now a *graduate student* at UC Irvine
Jessica Slatterlee (UCI): Now a *staff engineer* at Avocet Environmental, Inc.
Kevin Tran (UCI): Now a *graduate student* at the University of Michigan

UPP Undergraduate Students Mentored (2014):

Lynze Cheung (UCI): Now a *graduate student* at Monash University, AU
Silvia Gonzalez (UCI): Now a *graduate student* at University of Oregon School of Law
Dana Hernandez (UCI): Now a *graduate student* at UC Berkeley
Allison Hornstra (UCLA): Now a *masters student* at the University of Texas at Austin
Diana Kraikittikun (UCSD): Now a *physical therapy assistant* at Ultrahealth Sports
Joaquin Marquez (UCI)
Caitlin McAlpine (UCI): Now an *E.I.T* at the US Army Corps of Engineering
Roderic Roberts (UCSD): Now a *robotics intern* at BASF
Clint Rosser (UCSD)
Elena Sy Su (UCI): Now a *civil engineer* at Los Angeles Department of Water and Power
Madeline Walzem (UCSD): Now a *management intern* at the City of San Diego ESD
Joey Yan (UCLA): Now a *masters student* at Stanford

UPP Undergraduate Students Mentored (2015):

Belin Cairo (UCI)
Nicole Cuevas (UCI)
Andy Hwang (UCSD)
Minna Ho (UCLA)
Shalini Kannan (UCLA)
Alison Khoe (UCSD): Now a *masters candidate* at Yale
Jimmy Luong (UCSD): Now a *PhD student* at UCLA
Isabella Mariano (UCLA)
Nikole Meade (UCI)
Charlotte Papp (UCI)
Andrew Price (UCI): Now an *engineering intern* at Mesa Consolidated Water District
Oliver Saebj (UCI): Now a *masters student* in Environmental Engineering at Stanford

UPP Undergraduate Students Mentored (2016):

Bailey Balshor (UCI)
Fredy Rabadan (UCSD)
Lydia Natoolo (UCI)
Marina Lindsay (UCLA): Now a *career writing consultant* at the University of California Santa Barbara
Mayra Martinez (UCI)
Monique Grimaldi (UCSD)
Oswaldo Martinez (UCI)
Paul Barton (UCLA)
Ronald Domholdt (UCI): Now a *PhD student* in Engineering at the University of Michigan
Sarah Chiang (UCLA): Now an *engineering intern* at Orange County Public Works
Tess Hoang (UCI): Now a *graduate student* at the University of California, Berkeley
Trenton Saunders (UCLA)

3) UCI Graduate Student Mentor: Ashley Ciglar, M.S. (2013-2016), Asal Askarizadeh, Ph.D. (2013-

present), Emily Parker, Ph.D. (2014-present), Azadeh Hemati, M.S. (2015-2017), Kim Duong, Ph.D. (2016-present)

4) UCI Undergraduate Student Mentor: Ava Moussavi-Aghdam, B.S. (2014-2015)