

Nathan C. Emery

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Education & Honors

- University of California Santa Barbara** September 2016
Ph.D. in Ecology, Evolution and Marine Biology
Title: "Summer fog and live fuel moisture in coastal California shrublands."
Certificate in College and Undergraduate Teaching (CCUT)
Graduate Student Association Excellence in Teaching Award (2013)
- Duke University** Spring 2007
B.S. Biology, Graduation with Distinction
Thesis: "Functional diversity and invasibility of *Microstegium vimineum*."
- Organization for Tropical Studies** Fall 2005
Costa Rica study abroad program in Tropical Ecology

Professional Appointments

- Postdoctoral Research Associate**, Plant Biology Department, Michigan State University. Project titled: "Longitudinal study of teaching practices in early-career biology faculty." 2016 - present
- Data Support Team Member**, NSF Arctic Data Center, National Center for Ecological Analysis and Synthesis 2016
- Isotope Inter-University Training for Continental-scale Ecology Fellow**, Research-in-Residence at UC Berkeley, University of Utah 2014
- Research Assistantship**, California Energy Commission, Ecology, Evolution and Marine Biology Department, UC Santa Barbara 2011-2013
- Eastern Oregon Field Ecologist**, The Nature Conservancy of Oregon 2008

Publications

Emery, N., C. M. D'Antonio, and C. J. Still. 2017. Fog and live fuel moisture in coastal California shrublands. BioRxiv doi: <https://doi.org/10.1101/171850>

Ebert-May, D. and **N. Emery**. 2017. Teaching like a scientist: assessing your assessments. *Frontiers in Ecology and the Environment*, 15(5), 227-227.

Emery, N. 2016. Foliar uptake in coastal California shrub species. *Oecologia*. 182(3), 731-742. <<http://link.springer.com/article/10.1007/s00442-016-3712-4>>

Emery, N. 2016. Writing an Ecology Research Proposal. *EcoEDigital Library*. Ecological Society of America. <<http://ecoed.esa.org/index.php?P=FullRecord&ID=574>>

Emery, N and J. Lesage*. 2015. Late summer fog use in the drought deciduous shrub, *Artemisia californica* (Asteraceae). *Madroño*. 62: 150-157.
<<http://www.bioone.org/doi/abs/10.3120/madr-62-03-150-157.1>>

Chen, X., **Emery, N.**, Garcia, E. S., Hanan, E. J., Hodges, H. E., Martin, T., ... & Tague, C. 2013. Perspectives on disconnects between scientific information and management decisions on post-fire recovery in western US. *Environmental management*, 1-12. doi:10.1007/s00267-013-0165-y

* indicates undergraduate author

Publications in progress

Emery, N. and A. Pivavoroff. Phenology as a predictor of plant flammability. *In prep.*

Emery, N., D. Lin, and B. Cantwell. Hiring networks of UC Biology faculty. *In prep.*

Selected Scientific Presentations

Ecological Society of America: 102 nd Annual Meeting	Summer 2017
Talk: "Coastal fog and plant flammability in California shrublands"	
Talk: "Factors that predict teaching practices of early-career biology faculty"	
Ecological Society of America: 100 th Annual Meeting	Summer 2015
Co-organizer and presented in the Organized session: " <i>Head in the clouds: How fog and dew affects ecosystems around the world.</i> "	
American Geophysical Union: Fall Meeting	Fall 2014
Poster: <i>Fog Water Use in Coastal California Shrub Species</i>	
MEDECOS XIII: Crossing Boundaries across Disciplines and Scales	Fall 2014
Talk: <i>Coastal fog effects on live fuel moisture of California shrublands</i>	
Ecological Society of America 99 th Annual Meeting	Summer 2014
Talk: <i>Foliar uptake and physiology of California shrub species</i>	
Mildred Mathias Symposium , UC Natural Reserve System	Spring 2014
Talk: <i>Quantifying patterns of coastal fog deposition</i>	
Ecological Society of America 98 th Annual Meeting	Summer 2013
Talk: <i>Fog water use in coastal California shrublands</i>	
Ecological Society of America 97 th Annual Meeting	Fall 2012
Talk: <i>Fog and fuel moisture in California shrublands</i>	
California Native Plant Society Conservation Conference	Winter 2012
Talk: <i>How does fog affect fuel moisture?</i>	
MEDECOS XII: Linking science with resource management	Fall 2011
Poster: <i>How does fog affect the fire regime?</i>	

Teaching Experience

Instructor of Record , Introductory Biology 162, Michigan State University	Fall 2017
• Co-taught a 200-student introductory biology course	
Instructor of Record , General Plant Ecology, UC Santa Barbara	Winter 2014,
• Designed and taught a course for 50-85 upper-division ecology students	2015, 2016
Instructor of Record , Ecology and Management of California Wildlands, UC Santa Barbara	Fall 2015
• A 24-student field course with weekly field trips to California's ecosystems	

Academic Coordinator , Introductory Biology Lab Course, UC Santa Barbara	Summer 2015
<ul style="list-style-type: none"> • Train and manage eight teaching assistants to teach lab exercises • Develop lab quizzes, coordinate grading and maintain course website 	
Teaching Assistant , UC Santa Barbara	2010-2016
<ul style="list-style-type: none"> • Introductory Biology Lab Series 1, 2 and 3 • Foundations of Ecosystem Restoration (2012,2013,2014) • Ecology and Management of California Wildlands • Introduction to Ecology 	
Curriculum development for Teaching Assistants , UC Santa Barbara	2012-2013
<ul style="list-style-type: none"> • Co-developed a curriculum for the “Teaching Techniques for Teaching Assistants” course for the Biology departments with the course instructor 	

Grants, Fellowships and Awards (total = \$44,578)

Vernon Cheadle Award , CCBER, UCSB (\$500)	2016
Coastal Fund Grant , UCSB Associated Students (\$584)	2016
Doctoral Student Travel Grant , UCSB (\$685)	2015
Ecology, Evolution and Marine Biology Block Grant , UCSB (\$10,000)	2014-2015
Isotope Inter-University Training for Continental-scale Ecology Fellowship (\$4,043)	Summer 2014
Ecology, Evolution and Marine Biology Block Grant , UCSB (\$1,500)	2013-2014
Instruction Improvement Grant , Office of Instructional Development, UCSB (\$2,000)	2013
Ellen Schamberg Burley Graduate Scholarship , UCSB (\$700)	2013
NSF Doctoral Dissertation Improvement Grant , NSF (\$16,766)	2013
Mildred Mathias Research Grant , UC Natural Reserve System (\$1,900)	2013
California Native Plant Society Education Award , CNPS (\$500)	Winter 2012
Worster Award for Graduate and Undergraduate Research Pairing, UCSB (\$5,400)	2011, 2013

Relevant Coursework

Geographic Information Systems , Bren School of the Environment, UC Santa Barbara	Spring 2016
Software Carpentry R workshop , UC Santa Barbara	Spring 2015
Advanced Remote Sensing , UC Santa Barbara	Winter 2015
Stable Isotopes in Ecology , University of Utah	Spring 2011
Advanced Biostatistics , UC Santa Barbara	Spring 2011

Pedagogy Workshops/Training

BioQuest Workshop , Making Meaning through Modeling: Problem solving in biology	Summer 2017
Backwards Design Workshop , UC Santa Barbara	Spring 2017
<ul style="list-style-type: none"> • Designed and led a professional development workshop for graduate students, postdocs and early-career faculty in the STEM disciplines 	
Universal Design in Learning: Reaching and Teaching Diverse Learners , Center for the Integration of Research, Teaching and Learning	Fall 2016
STEM Teaching Essentials , Michigan State University	Fall 2016
<ul style="list-style-type: none"> • Tips for Successful Team Teaching • Strategies for Implementing Student Teams 	
Pathways to Scientific Teaching , Michigan State University	Fall 2016
TA Orientation Workshop Leader and Panelist , UC Santa Barbara	2012, 2013
Summer Teaching Institute for Associates , UC Santa Barbara	Summer 2013

Mentorship

Research Mentor , UC Santa Barbara	2011-2016
<ul style="list-style-type: none">• Mentored three undergraduates through senior thesis projects. One has been published, another is in prep.• Involved over 15 other students in my research program	
Summer Institute for Math and Science Mentor , UC Santa Barbara	Summer 2013
<ul style="list-style-type: none">• Mentored four incoming freshmen on an independent research project to demonstrate the scientific method	
Jack Kent Cooke Bridges Mentor , UC Santa Barbara	July 2012
<ul style="list-style-type: none">• Mentored several community college students for a one-week intensive program to learn about research methods and the scientific process.	
Summer Research Mentorship Program , UC Santa Barbara	Summer 2012
<ul style="list-style-type: none">• Paired with a highly motivated high school student interested in academic research. We developed a research study, conducted fieldwork, analyzed data and she gave a final presentation to her peers.	

Public Outreach

Biology on Tap , Lansing, Michigan.	Spring 2017
<ul style="list-style-type: none">• Gave two different science café talks on wildfires and non-native plants	
SciTrek , UC Santa Barbara Chemistry Department.	Fall 2015
<ul style="list-style-type: none">• Taught 7th graders about electrochemistry	
Science on Site , SB Museum of Natural History.	Summer 2015
<ul style="list-style-type: none">• Taught visitors how to do stomatal peels to learn about gas exchange	
Scienceline contributor for educational outreach, UCSB	2013-2016
<ul style="list-style-type: none">• Answered science questions from students of all ages	
Santa Barbara County Science Fair Judge (High school students) , UCSB	2010-2016
SciencePub hosted by the Santa Barbara Natural History Museum Talk: <i>California on Fire: How native plants respond to wildfire</i>	Fall 2014
Santa Barbara Native Plant Society , Talk about fog use in shrub species	Summer 2014
Santa Barbara Fire Safety Council , Talk about fuel moisture research	Summer 2014
Master Gardeners of Santa Barbara County , Talk about fire disturbance	Summer 2013
SciencePub hosted by the Santa Barbara Natural History Museum Talk: <i>I invade with a little help from my friends: How plants have moved around the world</i>	Spring 2013
The Santa Barbara Sentinel article about my research, pg. 23 Title: <i>June Gloom is Good (Sort Of)</i>	March 2013

Professional Services

Reviewed for: International Journal of Wildland Fire, American Journal of Botany	
Alumni interviewer, Duke University	2009-present
UC Natural Reserve System Graduate Student Representative, UC Santa Barbara	2013-2014
Departmental Seminar Series Coordinator, EEMB, UC Santa Barbara	2011-13
Biogeosciences Seminar Coordinator, UC Santa Barbara	2011
Graduate Student Symposium Coordinator, EEMB, UC Santa Barbara	2011

Professional Associations

California Botanical Society	2015-2017
Ecological Society of America	2010-present
California Native Plant Society	2010-present
Botanical Society of America	2012-2014

Other Skills

Computer skills: Proficient with JMP, Photoshop, ArcGIS, R

Pedagogy: Inquiry-based Learning, Active Learning, Student-Centered Learning, Flipped Instruction, Universal Design

Language fluency: Reading, writing and speaking Spanish.