

Allison Fritts-Penniman, Ph.D.

Curriculum Vitae

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Education

- 2016 Ph.D., Ecology and Evolutionary Biology (EEB)
University of California Los Angeles (UCLA)
Committee Chair: Dr. Paul Barber
Title: "Ecological speciation and cryptic diversity of coral-associated nudibranchs"
- 2008 B.S., Natural Resources and Biology with Distinction in Research
Cornell University College of Agriculture and Life Sciences
Thesis advisor: Dr. Janis Dickinson, Cornell Laboratory of Ornithology
Title: "Neophobia and Personality in Western Bluebirds, *Sialia mexicana*."

Professional appointments

- 2019 **Adjunct Faculty – Organismal Biology**
Saint Mary's College
- 2019 **Ocean Education Consultant**
The Hydrous
- 2017-2018 **National Science Foundation Postdoctoral Fellowship –
Broadening participation of groups underrepresented in biology**
California Academy of Sciences (CAS)
Sponsoring scientist: Dr. Terrence Gosliner
Project title: "Understanding the role of ecology in the evolution of high biodiversity on coral reefs"
- 2009-2010 **Population Genetics Laboratory Technician**
Seattle Institute for Biomedical and Clinical Research
- 2008-2009 **Conservation Genetics Intern**
Warm Springs Fish Technology Center, Warm Springs, GA
- 2006-2007 **Stream Ecology Research Assistant**
Cornell University Department of Natural Resources, Ithaca, NY
Hubbard Brook Experimental Forest

Awards and Honors

- 2015 UCLA EEB Special Faculty Award
2015 UCLA EEB Poster Award

2008	Magna Cum Laude, Cornell University
2008	Academic Excellence Award in Natural Resources
2007-2008	College of Agriculture and Life Sciences Honor Society
2007-2008	Golden Key International Honor Society

Fellowships, Grants, and Scholarships

2017-2018	National Science Foundation Postdoctoral Fellowship	\$138,000
2016	UCLA Office of Instructional Development Grant	\$13,000
2016	UCLA Graduate Division Travel Grant	\$500
2015	UCLA EEB Travel Grant	\$500
2015	UCLA Vice Chancellor for Research Scholarship	\$3,200
2015	American Society of Naturalists Student Research Fellowship	\$2,000
2014-2015	Graduate Assistance in Areas of National Need (GAANN) Fellow	\$19,374
2014	UCLA EEB Travel Grant	\$1,000
2013-2014	UCLA EEB Pauley Fellow	\$19,500
2013	Conchologists of America Research Grant	\$1,500
2013	UCLA EEB Research/Travel Grant	\$500
2012	Lerner Gray Memorial Fund, American Museum of Natural History	\$2,000
2012	Sigma Xi Grant-in-Aid of Research	\$1,000
2012	UCLA Indonesian Studies Program Lemelson Fellowship	\$5,000
2012	UCLA EEB Research Grant	\$1,000
2011-2012	Graduate Assistance in Areas of National Need (GAANN) Fellow	\$22,457
2010-2011	UCLA EEB Pauley Fellow	\$19,500
2004-2008	Cornell Tradition Fellow	
2005	Shoals Marine Lab John M. Kingsbury Scholarship	

Publications

Tsuang, D., Leverenz, J. B., Lopez, O. L., Hamilton, R. L.,...**Fritts-Penniman, A.**,... Zabetian, C. P. (2012). GBA mutations increase risk for Lewy body disease with and without Alzheimer disease pathology. *Neurology*, 79(19), 1944–1950.

In preparation:

Fritts-Penniman, AL; Gosliner, TM; Mahardika, GN; Barber, PH. (submitting to *Evolution*).
“Cryptic ecological and geographic species diversity in coral-associated nudibranchs.”

Fritts-Penniman, AL; Mahardika, GN; Barber, PH. (submitting to *Molecular Ecology*). “The role of natural selection in genomic divergence across ecological and geographic barriers to gene flow.”

Fritts-Penniman, AL; Mahardika, GN; Barber, PH. (submitting to *Frontiers of Biogeography*).
“Comparative biogeography of two corallivorous nudibranchs in the Coral Triangle.”

Invited Talks and Lectures

“Coral-eating nudibranchs.” Hydrous Ocean Salon. Schmidt Marine, San Francisco, CA.
15 November 2018.

- “Nudibranchs and genetics.” Guest lecture, Genetics. San Francisco State University, San Francisco, CA. 31 August 2018.
- “Biodiversity and evolution of marine species.” Careers in Science Orientation, California Academy of Sciences, San Francisco, CA. 13 June 2017.
- “Evolution in the ocean.” Girls in Ocean Science Teen Conference, The Ocean Institute, Dana Point, CA. 20 February 2016.
- "Genetic signatures of ecological speciation in a coral-associated nudibranch." Hawaii Institute of Marine Biology, University of Hawaii, Coconut Island, HI. January 2014.
- “Genomic signatures of ecological speciation in coral-associated nudibranchs.” Hawaii Institute of Marine Biology, University of Hawaii, Coconut Island, HI. September 2012.

Contributed Conference Presentations

- Fritts-Penniman, Allison L.;** Mahardika, Gusti Ngurah; Gosliner, Terrence M.; Barber, Paul H. “Integrating micro- and macroevolutionary approaches to understand the role of ecology in nudibranch diversification.” Evolution 2017. Oregon Convention Center, Portland, OR. 26 June 2017. Oral presentation.
- Fritts-Penniman, Allison L.** “Investigating the relationship between ecological isolation and reproductive isolation in nudibranchs.” Evolution 2017. Oregon Convention Center, Portland, OR. 25 June 2017. Lightning talk.
- Fritts-Penniman, Allison L.;** Mahardika, Gusti Ngurah; Gosliner, Terrence M.; Barber, Paul H. “Integrating micro- and macroevolutionary approaches to understand the role of ecology in generating coral reef biodiversity.” Gordon Research Seminar on Speciation. Renaissance Tuscany Il Ciocco, Barga, Italy. 19 February 2017. Oral and poster presentations.
- Fritts-Penniman, Allison L.;** Mahardika, Gusti Ngurah; Barber, Paul H. “Genomic signatures of adaptive divergence in a coral-associated nudibranch.” American Genetics Association President’s Symposium on Local Adaptation. 15 July 2016. Poster presentation.
- Fritts-Penniman, Allison L.;** Mahardika, Gusti Ngurah; Barber, Paul H. “Genomic evidence for ecological speciation in coral associated nudibranchs” International Coral Reef Symposium. 21 June 2016. Hawaii Convention Center, Honolulu, HI. Oral presentation.
- Fritts-Penniman, Allison L.;** Mahardika, Gusti Ngurah; Barber, Paul H. “Genomic evidence for ecological speciation in *Phestilla* nudibranchs.” Molluscan Forum. London Museum of Natural History, London, UK. 19 November 2015. Oral presentation.
- Fritts-Penniman, Allison L.;** Mahardika, Gusti Ngurah; Barber, Paul H. "Genomic signatures of ecological speciation in the coral associated nudibranch genus *Phestilla*." Evolution 2015. Casa Grande Resort, Guarujá, Brazil. 30 June 2015. Oral presentation
- Fritts-Penniman, Allison L.;** Mahardika, Gusti Ngurah; Barber, Paul H. "Genomic signatures of ecological speciation in the coral-associated nudibranch genus *Phestilla*." Ecology and Evolutionary Biology Research Symposium. UCLA, Los Angeles, CA. May 2015. Poster competition.
- Fritts-Penniman, Allison L.;** Mahardika, Gusti Ngurah; Barber, Paul H. "Genomic signatures of ecological speciation in the coral-associated nudibranch genus *Phestilla*." Gordon Research Conference on Speciation. Four Points Sheraton Hotel, Ventura CA. 16-20 March 2015. Poster presentation.
- Fritts-Penniman, Allison L.;** Mahardika, Gusti Ngurah; Barber, Paul H. "Genetic signatures of ecological speciation in a coral-associated nudibranch." Society for Integrative and

Comparative Biology. Hilton Austin Hotel, Austin, TX. 6 January 2014. Oral presentation.

Fritts-Penniman, Allison L. and Barber, Paul H. "Genetic signatures of ecological speciation in a coral-associated nudibranch." Benthic Ecology Meeting. Hyatt Regency Hotel, Savannah, GA. 23 March 2013. Oral presentation.

Fritts-Penniman, Allison L. "Genetic structure of coral-associated nudibranchs across the Pacific Ocean." Western Society of Naturalists Meeting. Embassy Suites, Seaside, CA. 9 November 2012. Poster presentation.

Department Seminars

"Cryptic Coral Connoisseurs: Natural history and evolution of coral-feeding nudibranchs." Institute for Biodiversity Science and Sustainability Seminar Series, California Academy of Sciences, San Francisco, CA. 13 September 2018.

"Ecological speciation and cryptic diversity of coral-associated nudibranchs." Colloquium in Ecology, Evolution, and Conservation, San Francisco State University, San Francisco, CA. 31 October 2017.

"Ecological speciation and cryptic diversity of coral-associated nudibranchs." Dissertation exit seminar. UCLA, Los Angeles, CA. 15 December 2016.

"Broadening your research impacts through science communication." EcoEvoPub Seminar Series, UCLA, Los Angeles, CA. 18 February 2016

"Genomic evidence for geographic and ecological isolation in a coral associated nudibranch." EcoEvoPub Seminar Series, UCLA, Los Angeles, CA. June 2015.

"A genomic approach to elucidating speciation processes in the nudibranch genus *Phestilla*." EcoEvoPub Seminar Series, UCLA, Los Angeles, CA. May 2014.

"Genetic signatures of ecological speciation in a coral-associated nudibranch." EcoEvoPub Seminar Series, UCLA, Los Angeles, CA. April 2013.

Mentorship and Teaching

2018 **Careers in Science Project Group Leader and Mentor**
California Academy of Sciences

2016 **Entering Mentoring Training Program**
College of Life Sciences, UCLA

2016 **Instructional Development Assistant**
Introduction to Marine Science
Department of Ecology and Evolutionary Biology, UCLA

2014-2016 **Teaching Assistant Consultant**
Teaching Biology in Higher Education (2 units)
Department of Ecology and Evolutionary Biology, UCLA
Instructor of record for TA training course

2012-2016 **Research Mentor**
Barber Lab, Department of Ecology and Evolutionary Biology, UCLA

- 2015 **Teaching Associate and Guest Lecturer**
Introduction to Marine Science (6 units)
Department of Ecology and Evolutionary Biology, UCLA
- 2014 **Teaching Associate**
EEBIOL 120: Evolution (4 units)
Department of Ecology and Evolutionary Biology, UCLA
- 2012-2013 **Teaching Associate**
Evolution of the Cosmos and Life (3 quarters, 6 units each)
General Education Cluster Program, UCLA
Instructor of record for Spring quarter: designed and taught seminar on Exploring California's Ecosystems
- 2011 **Teaching Assistant**
Introduction to Marine Science (6 units)
Department of Ecology and Evolutionary Biology, UCLA
- 2011 **Project Mentor/Teaching Assistant**
Diversity Project, Indonesian Biodiversity Research Center, Denpasar, Bali,
- 2006 **Teaching Assistant**
Field Biology (4 units)
Department of Natural Resources, Cornell University

University and Community Service

- 2018 826 Valencia: tutored students from underserved communities in San Francisco
- 2017-2018 CAS Early Career Scientists: created peer mentorship group for graduate students and postdocs; led biweekly meetings
- 2014-2016 Barber Lab Safety Manager
- 2013-2016 826 LA: tutored students from underserved communities in Los Angeles
- 2013-2016 Board member and co-founder, Bruin Naturalist Club
- 2014-2015 UCLA graduate student orientation
- 2014 Alfred Russel Wallace Centennial Celebration: coordinated student volunteers
- 2014 LA County Science Fair - Judge
- 2013-2014 UCLA Biological Sciences Council- EEB representative
- 2013-2014 UCLA Graduate Student Association- Biological Sciences representative; served on Graduate Resource Center Oversight Committee.
- 2012-2013 EEB Faculty Student Liaison
- 2011-2012 UCLA EcoEvoPub graduate seminar committee member
- 2004-2008 Cornell Tradition: 75 hours per year of community and campus service

Outreach and Science Communication

- 2018 Ambassador and Science Advisor, The Hydrous thehydro.us
- 2018 Skype a Scientist- Skyped with 2nd grade class in Darrington, WA
- 2018 Scientist's Scoop- virtual lesson for classes grades 4-12 around the US

- 2018 March for Science, Bay Area- Women in Science table
- 2018 Exploring Your Horizons, Berkeley- science conference for middle school girls
- 2018 Taste of Science SF- adult science outreach
- 2017-2018 CAS NightLife- Designed and facilitated “find the nudibranch” game with museum visitors using photos from my research of nudibranch camouflaged on their coral hosts. Organized Women in Science discussion panel. Wrote and facilitated scavenger hunt for Bay Area Postdocs Association. Co-wrote and hosted science quiz show, Wait Wait... Don’t Cite Me!
- 2017-2018 Created citizen science project on iNaturalist, “Cryptic Coral Connoisseurs”
- 2017 Bay Area Science Festival Discovery Day
- 2017 Filipino American International Book Festival- Panelist, Philippine biodiversity
- 2016 National Center for Science Education- Scientist in the Classroom.
- 2016 UCLA Grad Slam
- 2015 Organization for Tropical Studies graduate course “Telling Stories About Science: Science Communication in the Digital Age”
- 2015 Produced a video explaining dissertation research on nudibranch speciation to a general audience: <https://www.youtube.com/watch?v=ICQIdiSkW8U>
- 2015 Women in STEM Discussion Panel, High Tech Los Angeles Charter High School
- 2014-2015 Exploring Your Universe, UCLA science outreach day- EEB table manager
- 2014 Alfred Russel Wallace Centennial Celebration: designed evolution-focused curriculum for K-12 field trips to the UCLA Botanical Gardens
- 2014 Santa Monica Pier Aquarium Volunteer
- 2013 Exploring Your Universe, UCLA science outreach day- volunteer
- 2012 Produced parody music video about research in the Coral Triangle that has been viewed more than 64,000 times on YouTube:
<http://www.youtube.com/watch?v=9BI2m3QoaS8>

Certifications

- 2012 American Academy of Underwater Sciences Certification, UCLA
Dive Safety Officer and Instructor: Mike Anghera
- 2011 PADI Open Water Diving Certification, Dive ‘n Surf, Redondo Beach, CA

Society Membership

- American Society of Naturalists
- World Congress of Malacology
- 500 Women Scientists