

# Amelia A. Wolf

Ecology, Evolution, and Environmental Biology  
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## PROFESSIONAL EXPERIENCE AND EDUCATION

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<b>University of Texas at Austin</b> Austin, TX Assistant professor, Department of Integrative Biology	<i>starting January 2019</i>
<b>Columbia University</b> New York, NY Postdoctoral Scholar Advisor: Duncan Menge	2015-2018
<b>University of California, Santa Cruz</b> Santa Cruz, CA Postdoctoral Scholar Advisor: Erika Zavaleta	2011-2014
<b>Stanford University</b> Stanford, CA Ph.D. Ecology Advisor: Peter Vitousek	2005-2011
<b>Colorado College</b> Colorado Springs, CO B.A. Chemistry; African Studies minor	1997-2001

## OTHER PROFESSIONAL APPOINTMENTS

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<b>University of California, Davis</b> Davis, CA Visiting researcher, Department of Plant Sciences Postdoctoral affiliate, Center for Population Biology	2015-present
<b>University of California, Los Angeles</b> Los Angeles, CA Visiting Scholar, Institute of the Environment and Sustainability Senior Research Fellow, Center for Tropical Research	2014-2015
<b>University of California, Santa Cruz</b> Santa Cruz, CA Lecturer, Department of Environmental Studies	2013-2014
<b>Carnegie Institution Department of Global Ecology</b> Stanford, CA Visiting Scholar	2011-2012
<b>US Geological Survey</b> Moab, UT Graduate student intern	2010-2011
<b>Stanford University</b> Stanford, CA Joint NSF/Stanford Science and Engineering Graduate Fellow	2005-2011
<b>Smithsonian Environmental Research Center</b> Edgewater, MD Research Technician and Lab Manager	2002-2005

## GRANTS, AWARDS, AND HONORS

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NSF-DEB (co-author and senior personnel): Does a transition in nitrogen fixation strategy explain the latitudinal distribution of nitrogen-fixing trees? \$999,728	2015-2018
National Science Foundation Doctoral Dissertation Improvement Grant \$12,000	2008-2010
Stanford Graduate Fellowship in Science and Engineering ~\$135,000	2005-2010
National Science Foundation Graduate Research Fellowship ~\$100,000	2006-2009
Phi Beta Kappa Northern California Association Graduate Fellowship \$5000	2009
Stanford University SCORE Grant \$1000	2009
Stanford University Center for African Studies Graduate Fellowship \$5000	2008
Colorado College Barnes Scholarship (full-tuition)	1997-2001

## PUBLICATIONS

16. Lu, X., Y. Hu, **A.A. Wolf**, X. Han. (In review following revise decision, *Journal of Ecology*). Species richness facilitates plant nutrient resorption in grasslands: implications for the biodiversity-productivity relationship.
15. **Wolf, A.A.**, E.S. Zavaleta, P.C. Selmants, J.L Funk, D. Hernandez, J. Pasari, C. Morozumi (in revision following reject/resubmit decision, *PNAS*). Temporal and spatial variability in resource availability mediate the effects of realistic species loss on ecosystem functioning.
14. Menge, D.N.L., A.C. MacPherson, T.A. Bytnerowicz, A.W. Quebbeman, N.B. Schwartz, B.N. Taylor, **A.A. Wolf**. 2018. Logarithmic scales in ecological data presentation may cause misinterpretation. *Nature Ecology and Evolution*. doi: 10.1038/s41559-018-0610-7
13. Tang, L., **A.A. Wolf**, Y. Gao, B. Li. 2018. Photosynthetic tolerance to non-resource stress influences competition importance and intensity in an invaded wetland. *Ecology*. doi: 10.1002/ecy.2214
12. **Wolf, A.A.**, E.S. Zavaleta, P.C. Selmants. 2017. Flowering phenology shifts in response to biodiversity loss. *Proceedings of the National Academy of Sciences*. doi: 10.1073/pnas.1608357114  
Featured by Scientific American's 60-second Science podcast, *Science et Vie*, *NSF Science360 News*, *Nature EcoEvo*, *Climate News Network*, *Columbia University News*
11. **Wolf, A.A.**, J.L. Funk, and D.N.L. Menge. 2017. The symbionts made me do it: Legumes are not hardwired for high nitrogen concentrations but incorporate more nitrogen in the presence of bacterial partners. *New Phytologist*. doi: 10.1111/nph.14303  
see related commentary piece: Reed, S.C. 2017. Disentangling the complexities of how legumes and their symbionts regulate plant nitrogen access and storage. *New Phytologist*. doi: 10.1111/nph.14390
10. Funk, J.L. and **A.A. Wolf**. 2016. Testing the trait-based community framework: do functional traits predict competitive outcomes in invaded grassland? *Ecology*. doi: 10.1002/ecy.1484
9. Zavaleta, E.S., E. Olimpi, **A.A. Wolf**, B. Stanford, J. Pasari, S. Skikne, P. Quadri, K. Ennis, F. Stoike. 2016. Biological invasions. in E.S. Zavaleta and H. Mooney (eds.) *Ecosystems of California*. University of California Press. ISBN: 9780520278806
8. Menge, D.N.L., **A.A. Wolf**, J.L Funk. 2015. Diverse nitrogen fixation strategies and their ecosystem effects in natural systems. *Nature Plants*. doi: 10.1038/nplants.2015.64
7. Sistla, S.A., A.P. Appling, A.M. Lewandowska, B.N. Taylor, **A.A. Wolf**. 2015. Stoichiometric plasticity in response to fertilization along gradients of environmental and organismal nutrient richness. *Oikos*. doi: 10.1111/oik.02385
6. **Wolf, A.A.** and E.S. Zavaleta. 2015. Species traits outweigh nested structure in driving the effects of realistic biodiversity losses on productivity. *Ecology*. doi: 10.1890/14-0131.1  
Featured on CGIAR's Science on the Pulse blog series: <https://wle.cgiar.org/thrive/2015/04/15/science-pulse-top-reads-february-and-march-part-ii>
5. Selmants, P.C., E.S. Zavaleta, **A.A. Wolf**. 2014. Realistic plant species losses alter community-level plant nitrogen use in a California serpentine grassland. *Ecology*. doi: 10.1890/13-1192.1
4. Keller, J.K., **A.A. Wolf**, P.B. Weisenhorn, B.G. Drake, J.P. Megonigal. 2009. Elevated CO<sub>2</sub> affects porewater chemistry in a brackish marsh. *Biogeochemistry*. doi: 10.1007/s10533-009-9347-3
3. Langley, J.A., D.C. McKinley, **A.A. Wolf**, B.A. Hungate, B.G. Drake, J.P. Megonigal. 2009. Priming depletes soil carbon and releases nitrogen in a scrub-oak ecosystem exposed to elevated CO<sub>2</sub>. *Soil Biology and Biochemistry*. doi:10.1016/j.soilbio.2008.09.016
2. **Wolf, A.A.**, B.G. Drake, J.E. Erickson, J.P. Megonigal. 2007. An oxygen-mediated positive feedback between elevated carbon dioxide and soil organic matter decomposition in a simulated anaerobic wetland. *Global Change Biology*. doi: 10.1111/j.1365-2486.2007.01407.x

1. Magonigal, J.P., C.D. Vann, A.A. Wolf. 2005. Flooding constraints on tree and herb growth responses to elevated CO<sub>2</sub>. *Wetlands*. doi: 10.1672/17

## INVITED SEMINARS

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Wolf, A.A. 2018. Sonoma State University, Rohnert Park, CA.  
Wolf, A.A. 2018. University of Texas, Austin, TX.  
Wolf, A.A. 2017. Cary Institute for Ecosystem Studies, Millbrook, NY.  
Wolf, A.A. 2017. University of San Francisco, San Francisco, CA.  
Wolf, A.A. 2016. Dartmouth College, Hanover, NH.  
Wolf, A.A. 2016. UC-Davis Ecology and Evolutionary Biology, Davis, CA.  
Wolf, A.A. 2016. UC-Merced Environmental Systems Department, Merced, CA.  
Wolf, A.A. 2015. UC-San Diego Ecology, Behavior, and Evolution Section, San Diego, CA.  
Wolf, A.A. 2015. UC-Irvine Department of Ecology and Evolutionary Biology, Irvine, CA.  
Wolf, A.A. 2015. UCLA Department of Ecology and Evolutionary Biology, Los Angeles, CA.  
Wolf, A.A. 2014. Chapman University Biology Department, Orange, CA.  
Wolf, A.A. 2011. UC-Santa Cruz Department of Environmental Studies, Santa Cruz, CA.  
Wolf, A.A., J.P. Magonigal, B.G. Drake. 2010. Smithsonian Environmental Research Center, Edgewater, MD.  
Wolf, A.A. 2009. Stanford University Center for African Studies, Stanford, CA.

## TEACHING EXPERIENCE

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### University of California, Santa Cruz

2014 Winter quarter	Instructor – <i>Climate Change Ecology</i> (5 units)
2013 Summer quarter	Instructor – <i>Environmental Field Methods</i> (5 units)
2013 Summer quarter	Instructor – <i>Field Methods Laboratory</i> (2 units)
2013 Spring quarter	Guest lecturer - <i>Environmental Field Methods</i>

### Stanford University

2012, 2010 Fall quarter	Guest lecturer – <i>Ecology</i>
2007, 2006 Winter quarter	Guest lecturer – <i>Biology of Global Change</i>
2007, 2006 Winter quarter	Teaching assistant – <i>Biology of Global Change</i>
2006 Spring quarter	Teaching assistant and section leader – <i>Experimental Laboratory in Ecology</i>

## SELECTED CONFERENCE PRESENTATIONS

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Wolf, A.A., D.N.L. Menge, J.L. Funk, S. Perakis. 2018. Nitrogen fixation strategies in rhizobial and actinorhizal trees across an N gradient: A mystery in three parts. Annual meeting of the Ecological Society of America, Portland, OR.

Wolf, A.A., D.N.L. Menge, J.L. Funk, S. Perakis. 2017. Does a shift in fixation strategy explain the latitudinal distribution pattern of nitrogen fixing trees? Annual meeting of the Ecological Society of America, Portland, OR.

Wolf, A.A., D.N.L. Menge, J.L. Funk. 2016. Legumes are not hardwired for high nitrogen concentrations but incorporate more nitrogen in the presence of bacterial partners. Symbiosis Workshop, Yosemite, CA.

Wolf, A.A., D.N.L. Menge, J.L. Funk. 2015. Nutrient use efficiency and N:P stoichiometry are highly plastic in herbaceous N-fixing legumes. Annual meeting of the Ecological Society of America, Baltimore, MD.

Wolf, A.A., E.S. Zavaleta, P.C. Selman, C. Morozumi, D. Hernandez, J. Pasari. 2014. Climatic variability and soil depth mediate the effects of biodiversity loss on ecosystem functioning. Annual meeting of the Ecological Society of America, Sacramento, CA.

Wolf, A.A., E.S. Zavaleta. 2012. Species traits, not nested structure, drive the effects of realistic biodiversity losses on

productivity. Annual meeting of the Ecological Society of America, Portland, OR.

*Highlighted in Marc Cadotte's EEB and Flow blog: <http://evol-eco.blogspot.com/2012/08/esa-portland-day-2-march-of-phylogeny.html>*

**Wolf, A.A.,** S.C. Reed. 2011. Biofuel production potential in the southwestern U.S. Annual meeting of the Ecological Society of America, Austin, TX.

*Press coverage: Radio interview for EarthSky, <http://earthsky.org/human-world/biofuel-production-has-potential-in-u-s-southwest>*

**Wolf, A.A.,** T.M. Palmer, P.M. Vitousek. 2009. Divergent effects of different ant partners on host trees in a Kenyan ant-plant mutualism. Annual meeting of the Ecological Society of America, Albuquerque, NM.

**Wolf, A.A.** 2009. Does herbivore extirpation affect ant-mediated nutrient and water distribution in a Kenyan savanna? Bay Area Conservation Biology Symposium, Stanford, CA.

**Wolf, A.A.** 2007. Host-tree nutrient provisioning by ants in a protective ant-*Acacia* mutualism. Species Interaction Workshop, Stanford, CA.

**Wolf, A.A.,** K.M. Carney, B.G. Drake, J.P. Megonigal. 2004. The priming effect: Elevated CO<sub>2</sub> and rhizosphere presence increase soil organic matter decomposition in a wetland system. Annual meeting of the Ecological Society of America, Portland, OR.

**Wolf, A.A.,** J.P. Megonigal, B.A. Hungate, F.P. Day, B.G. Drake. 2003. Effects of elevated CO<sub>2</sub> on soil carbon in a scrub oak ecosystem. Annual meeting of the Ecological Society of America, Savannah, GA.

#### INVITED SYMPOSIA AND WORKSHOP PARTICIPANT

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Woodstoich 2.0: Understanding the role of climatic factors in regulating stoichiometric responses of organisms and ecosystems to nutrient enrichment. Founding working group member and co-author on funded proposal. HWK Institute for Advanced Study, Delmenhorst, Germany. July 2017

UC-Davis WiSci (Women in Science): Finding and funding a successful postdoctoral position. Invited panelist. UC-Davis, Davis, CA. March 2017.

Woodstoich: workshop on ecological stoichiometry. Selected participant. National Science Foundation and the University of Sydney, Sydney, Australia. August 2014.

Workshop on Scientific Teaching. Selected participant. San Francisco State University, San Francisco, CA. February 2014.

WEBS: Women Evolving Biological Sciences National Symposium. Selected participant. NESCent, Durham, North Carolina. October 2013.

Ecological Norms Workshop: the future of biofuels and genetically engineered crops. Invited moderator. Stanford University. October 2011.

A quarter-century of CO<sub>2</sub> enrichment in scrub oak and coastal wetland habitats. Invited participant. Smithsonian Environmental Research Center, Edgewater, Maryland. May 2010.

North American Nature Photographers Association Summit. Selected participant and scholarship recipient. Reno, NV. February 2010.

#### PROFESSIONAL SERVICE AND ACTIVITIES

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Amelia A. Wolf

Ad-hoc reviewer: National Science Foundation DEB program, *Ecology Letters*, *Ecology*, *Proceedings of the Royal Society – B*, *PLoS One*, *Journal of Ecology*, *Global Change Biology*, *Ecosystems*, *New Phytologist*, *The Geographic Journal*, *Australian Journal of Zoology*, *Plant and Soil*, *Plant Ecology*, *Acta Oecologica*, *Functional Ecology*, *Physiologia Plantarum*.

UC-Davis WiSci (Women in Science) group member (2015-2018)

Undergraduate mentor: two NSF-funded REU students in biogeochemistry at the Smithsonian Environmental Research Center (2003-2004); four Stanford University work-study students (2010-2011); 13 UC-Santa Cruz undergraduate field and laboratory assistants (2011-2013), and two UC-Davis internship students (2017)

Consultant with the Sustainable Food Lab on a web-based tool to quantify and provide direction on reductions of agricultural greenhouse gas emissions, with specific work on N<sub>2</sub>O and soil carbon components (2011-2012).

Co-founder, co-editor and contributor, *Mpala Memos*, a quarterly publication that seeks to inform a general audience of the scientific and outreach activities of Mpala Research Centre, Kenya (2009-2012).

*Past issues can be found at:* [http://www.mpala.org/Get\\_our\\_Newsletter.php](http://www.mpala.org/Get_our_Newsletter.php)

Instructor and Volunteer, Stanford SPLASH program for middle- and high-school students (2009-2011).

*Course taught:* Ecology of the African Savanna

Judge, Ecological Society of America ecophysiology section student and postdoctoral awards (2011).

Co-author, small-grants project leader, and proposal reviewer for the Stanford Department of Biology SCORE grant (2008-2009).

Inaugural steering-committee member, Central California Coast chapter of the Society for Conservation Biology (2007-2008).

Admissions committee graduate student member, Stanford University Department of Biology (2007).