

David LeBauer

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Institute for Genomic Biology
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Education

Ph.D.	2008
Department of Earth System Science	University of California at Irvine
M.S.	2003
Ecology Graduate Group, Agriculture emphasis	University of California at Davis
B.S. <i>Honors</i>	1998
Biology, Ecology concentration	Duke University

Research Experience

Postdoctoral Research Associate	2009-present
Dr. Mike Dietze	University of Illinois at Urbana-Champaign
I am utilizing an ecophysiological model to understand and predict the implications of different potential biofuel crop species for regional and global carbon, nitrogen, and water cycling.	

PhD. Candidate	2004-2008
Dr. Kathleen Treseder	University of California at Irvine
Investigated the impact of nitrogen on global plant production, net ecosystem carbon balance, and the effects of biodiversity on decomposition.	

Laboratory and Operations Manager	2003-2004
Dr. Omon Isikhuemhen	N.C. A&T State University
Managed research program focused on agricultural, industrial, and medicinal applications of white-rot fungi, advised student members of the lab, coordinated extension activities.	

Research Assistant	2001-2003
Dr. Louise Jackson and Dr. Kate Scow	University of California at Davis
Investigated the effect of mycorrhizal fungi and N addition on the C, N, and P content of organic canning tomatoes, and the response of nitrifier bacteria communities to N in agricultural fields.	

Visiting Researcher	1998
Dr. Omon Isikhuemhen	Mikrobiologizky Ustav, Prague
Investigated ligninolytic enzyme production in white rot fungi, cultivation of <i>Pleurotis tuberregium</i> .	

Independent Research	1998-2001
Dr. Rytas Vilgalys	Duke University
Establishment of a landscaped mushroom garden in the Sarah P. Duke Gardens, isolation and cultivation of local fungi, teaching.	

Independent Research	1997-1998
Dr. Janis Antonovics	Duke University
Honors Thesis: "Mycorrhizally mediated competition between two host plants"	

Labratory and Field Technician	1997-2001
Dr. Jacqueline Mohan	Duke University
Dr. James Clark and Dr. William Schlesinger	
Research assistant, plant community response to free-air CO ₂ enrichment (Duke-FACE), effects of the environment on seedling establishment and recruitment.	

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Teaching Experience

Teaching Assistant BIO 100LW: Experimental Biology Laboratory	Fall 2008 UC Irvine
Teaching Assistant / Instructor CA State Summer School for Math and Science	Summer 2008 / 2009 UC Irvine
Teaching Assistant ESS 134: GIS for Environmental Science	Winter 2006, 2008 UC Irvine
Teaching Assistant ESS 13: Global Change Biology	Spring 2007 UC Irvine
Agricultural Extension Instructor Log Cultivation of Shiitake Mushrooms	Fall 2003- Spring 2004 NC A& T SU
Teaching Assistant PLP 140: Mushroom Cultivation	Winter 2003 UC Davis
Co-leader HsC 79.17: Project WILD Outdoor Experiential Education Course	Spring 1996 Duke University

Funding

Graduate Student Fellowship Kearney Soil Science Foundation, Davis, CA.	2005-2007 \$33,580
Mildred E. Mathias Graduate Research Grant UC Natural Reserve System	2006 \$1000
Departmental Fellowship Earth System Science, UC Irvine	2004-2005 \$32,000
Benenson Award in the Arts Duke University	1998 \$1500

Publications

Journal Articles

LeBauer, D.S. Fungal Diversity and Decomposition in Microcosms, *in review*.

Allison, S.D, D.S. LeBauer, M.R. Ofrecio, R. Reyes, A.M. Ta, and T.M. Tran. 2008. Low levels of nitrogen addition stimulate decomposition by boreal forest fungi. *Soil Bio. Biochem* 41:293-302.

LeBauer, D.S. and K.K. Treseder. 2008. Nitrogen Limitation of Net Primary Productivity in Terrestrial Ecosystems is Globally Distributed. *Ecology* 89 (2): 371-379

Okano, Y., K.R. Hirstova, C.M. Leutenegger, L.E. Jackson, R.F. Denison, B. Gebreyesus, D.S. LeBauer, and K.M. Scow. (2004) Effects of ammonium on the population size of ammonia-oxidizing bacteria in soil- Application of real-time PCR. *Applied and Environmental Microbiology* 70:1008-1016.

Thesis chapters *in prep*

LeBauer, D.S., E.W. Seabloom, and W.S Harpole. Ecosystem responses to a gradient of nitrogen fertilization in Southern California grassland.

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Other Publications

Book Chapter

Isikhuemhen, O.S. and D.S. LeBauer. 2004. Growing *Pleurotus tuberregium*. p270-281 in Mushroom Grower's Handbook 1: Oyster Mushroom Cultivation. MushWorld. Seoul, Korea.

News Articles

LeBauer, D.S. 2008. Nitrogen Pollution Boosts Plant Growth. Scitizen.com, France

LeBauer, D.S. 2004. Consider Shiitake Cultivation! Stewardship News, Carolina Farm Stewardship Association. Pittsboro, NC. 24(2):8-11.

Selected Presentations

LeBauer, D.S., and K.K. Treseder 2007. Nitrogen deposition reduces nitrogen limitation of terrestrial net primary production, ESA, San Jose, CA

LeBauer, D.S., and K.K. Treseder 2006. Nitrogen Limitation of Terrestrial Net Primary Production: Global Patterns From Field Studies with Nitrogen Fertilization, AGU, San Francisco, CA

LeBauer, D.S., and K.K. Treseder 2006. Grassland carbon dynamics along nitrogen and depth gradients. ESA, Memphis, TN

LeBauer, D.S. and O.S. Isikhuemhen. 2003. Small farm mushroom production for food and medicine. (Workshop) CFSA Sustainable Agriculture Conference, Rock Hill, SC

Mycological Consulting

Cultivation, Oyster mushroom (*Pleurotus ostreatus*) on tomato (*Lycopersicon esculentum*) pomace, for Dr. Annie King and Dr. Jamal Assi, UC Davis 2003

Cultivation and Education, Crabtree Valley Farms, Chatanooga, TN. 2000; Wildflower Organics, Dawsonville, Ga., 1999-2000; Sustenance Farm, Bear Creek, NC., 1999

Mycological Landscaping, Sarah P. Duke Gardens, Durham, NC. Summer 1998, 1999

Professional Affiliations

Ecological and Mycological Societies of America, American Geophysical Union, Sigma Xi

Service

Graduate Student Representative, Department of Earth System Science, University of California at Irvine, 2006-2007

Judge, California State Science Fair, 2006, 2007

Ad hoc reviewer: Geophysical Research Letters, Ecology, Plant and Soil

Graduate Student Seminar Organizer, Earth System Science, University of California at Irvine, 2005-2006

Mentor, FARMS Leadership, Inc. 2003. 8th grade science project to investigate soil quality and mycorrhizal colonization levels in gardens. Sacramento, CA.

Guest Teacher, K-12, 1998-99. Scientists in the Classroom, Sigma Xi, Durham, NC.

Additional Coursework

Plant Functional Traits, NCEAS Distributed Graduate Seminar, 2008

Probability, Bayesian Statistics, UCI Statistics Dept, 2007;

Sustainable Agriculture, Central Carolina Community College, 1999