

## **Sarah A. Placella**

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### **EDUCATION**

- 2011 PhD Environmental Science, Policy and Management, University of California, Berkeley. Berkeley, CA. Advisor: Mary K. Firestone.  
2005 Microbial Diversity Course, Marine Biological Laboratory, Woods Hole, MA.  
2003 BA Earth and Planetary Sciences, Johns Hopkins University, Baltimore, MD.  
Undergraduate thesis advised by Katalin Szlavecz.  
2002 Geology Field Camp, University of Pennsylvania, Yellowstone-Bighorn Research Association, Red Lodge, MT.

### **PROFESSIONAL RESEARCH EXPERIENCE**

- Present Agreenskills postdoctoral fellowship with Philippe Hinsinger at INRA UMR Eco&Sols, Montpellier, France  
2013 Post-doctoral research associate with Stephen K. Hamilton and the Great Lakes Bioenergy Research Center  
2011-2012 Post-doctoral research associate with Jay T. Lennon at the W.K. Kellogg Biological Station, Michigan State University.  
2003 Research technician, Department of Earth and Planetary Sciences, Johns Hopkins University, Katalin Szlavecz, supervisor.  
2001 Research Experience for Undergraduates (REU) Student, Institute of Ecosystem Studies, Peter Groffman, PI, Katalin Szlavecz, advisor.

### **PROFESSIONAL TEACHING EXPERIENCE**

- 2006 Graduate Student Instructor, Introduction to Environmental Science, University of California, Berkeley, CA, Course led by Allen Goldstein and Mary Firestone.  
2003-2004 Middle School Teacher, French I and Awareness of Language, Julius West Middle School, Montgomery County Public Schools, Rockville, MD.

### **HONORS AND AWARDS**

- Travel award, 3<sup>rd</sup> Annual Argonne Soil Metagenomics Workshop, 2011  
James P Bennett Agricultural Fellowship, University of California, Berkeley, 2010  
Best Student Poster, International Conference on Nitrification, 2009  
Student Travel Award, International Conference on Nitrification, 2009  
Fellow, Summer Institute for Preparing Future Faculty, 2009  
Berkeley Atmospheric Sciences Center Fellowship 2008, \$10,000  
Student Representative for the Graduate Admissions Committee 2007  
Department of Energy, Global Change Fellow 2006, 2007, 2008, 2009, tuition, fees, and stipend  
Honorable Mention, National Science Foundation, Graduate Research Fellowship 2005, 2006  
Phi Beta Kappa  
National Society of Collegiate Scholars

### **SERVICE**

- Ad hoc review of a research proposal for the National Science Foundation (2011) and manuscripts for *Global Change Biology*, *New Phytologist*, *Biogeochemistry* and *Plant and Soil*.

## **PEER-REVIEWED PUBLICATIONS**

- Placella SA**, Firestone MK (2013). Transcriptional response of nitrifying communities to wetting of dry soil. *Applied and Environmental Microbiology* 79: 3294-3302.
- Sudderth EA, St Clair SB, **Placella SA**, Swarbreck SM, Castanha C, Herman DJ, Fischer ML, Kleber M, Sudderth EB, Torn MS, Firestone MK, Andersen GL, Ackerly DD (2012). Sensitivity of resource pools and fluxes to dry periods under low and high rain treatments on two contrasting soils. *Ecosphere* 3: Article 70.
- Placella SA**, Brodie EL, Firestone MK (2012). Rainfall-induced carbon dioxide pulses result from sequential resuscitation of phylogenetically clustered microbial groups. *Proceedings of the National Academy of Sciences USA* 109: 10931-10936.
- Leakey ADB, Ainsworth EA, Bernard SM, Markelz RJC, Ort DR, **Placella SA**, Rogers A, Smith MD, Sudderth EA, Weston DJ, Wullschleger SD, Yuan S (2009). Gene expression profiling: opening the black box of plant ecosystem responses to global change. *Global Change Biology* 15: 1201-1213.
- Szlavec K, **Placella SA**, Pouyat RV, Groffman PM, Csuzdi C, Yesilonis I (2006). Invasive earthworm species and nitrogen cycling in remnant forest patches. *Applied Soil Ecology* 32: 54-62.

## **INVITED ORAL PRESENTATIONS**

- Placella SA**, Lennon JT. Microbes, moisture, and metabolic activity: using rainfall reduction shelters to test fundamental questions in microbial ecology. Kellogg Biological Station Long-Term Ecological Research Site All Scientists Meeting, Hickory Corners, MI, March 2012.
- Placella SA**, Brodie EL, Firestone MK. Microbial resuscitation following soil wet-up: who is responsible for the CO<sub>2</sub> pulse? American Geophysical Union Fall Meeting, San Francisco, CA, December 2011.
- Placella SA**. What happens when it rains? Microbial resuscitation following soil wet-up and ecosystem implications. Seminar Series, Kellogg Biological Station, Hickory Corners, MI, September 2011.
- Placella SA**, Firestone, MK. Soil nitrous oxide emissions following rain pulses. Soil Science Society of America International Annual Meeting, Long Beach, CA, November 2010.
- Submitted presentations and posters: 12 as first author.

## **MENTORING**

- 5/11 – 8/11**, Mentored a REU student in the effects of biofilms on soil water potential and microbial activity including the set-up and use of dataloggers and probes.
- 5/10 – 12/10**, Mentored a plant and microbial biology sophomore in general laboratory techniques, molecular methods, microbiology, and microbial isolation.
- 9/07 – 5/08**, Mentored an integrative biology junior in general laboratory techniques, basic science research, and microbiology. She is now pursuing an MPH in epidemiology.
- 7/06 – 5/07**, Mentored a summer student who chose to pursue an honor's thesis (Conservation and Resource Studies) again under my mentorship. She is pursuing a PhD at UC Boulder.
- 10/06 – 5/07**, Mentored a student for her senior project

## **PRESS**

- “Microbial Awakening” by Hayley Dunning, Editor's Choice in Ecology, *The Scientist*, November 2012.
- “Tilling takes toll on soil's tiny creatures, student finds” by Michael Purdy, *Johns Hopkins Gazette*, April 23, 2003