

# EMILY E. AUSTIN

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## Education

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University of Tennessee	Ph.D. Ecology and Environmental Biology	Dec 2013
Hampshire College	B.A. Forest Ecology and Environmental Sciences	May 2006

## Professional Appointments

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University of New Hampshire	Post-Doctoral research fellow	2014 - present
University of Tennessee	Teaching Fellow	2009 - 2013
	NSF Research Fellow	2010 - 2013
Oak Ridge National Laboratory	Post-Baccalaureate research fellow	2006 - 2009
Harvard Forest	Research Assistant	2005-2006
Woods Hole Research Center & Harvard Forest	NSF Research Experience for Undergraduates research fellowship	2005

## Teaching Experience

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Teaching Fellowships	University of Tennessee	
	Lab Instructor 4 sections EEB 250: Ecology	2013
	Lab Instructor 4 sections EEB 130: Biology	2009
Instructor	University of New Hampshire	
	NR 795 Soil Fertility	2016
	University of Tennessee "Kids U"	
	"Fungus Among Us" grades 6-9	2011 & 2012
Guest Lectures	University of New Hampshire	
	NR 861 Environmental Soil Chemistry	2016
	University of Tennessee	
	EEB490: Global Change	2012
	EEB250: Ecology	2011 & 2013
Teaching Assistant	Hampshire College	
	NS 306: Topics in Forest Ecology	2006
	NS 268: Ecology of New England Old Growth Forests	2006

## Publications

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**Austin, EE**, Wickings, K, McDaniel M, Robertson, PG, Grandy, AS. 201X. The fate of cover crop root and shoot carbon belowground in a corn bioenergy system. *GCB Bioenergy - In press.*

**Austin, EE**, Grandy, AS, Breza\*, LB, Bowles, TM. 201X. Cover crop identity influences soil carbon sequestration: A Meta-analysis. *In preparation.*

**Austin, EE**, Schadt, CW, Classen, AT. 201X. Experimental warming slows wood decomposition and causes shifts in decomposer communities and effects vary between sites. *In preparation.*

**Austin, EE**, Schadt, CW, Classen, AT. 201X. Fungal community shifts during wood decomposition do

not alter the response of respiration to temperature. *In preparation.*

Castro, HF, Classen, AT, **Austin, EE**, Crawford, KM\*, Schadt, CW. 2012. Development and validation of a citrate synthase directed quantitative PCR marker for soil bacterial communities. *Applied Soil Ecology* 61:69-75.

Castro, HF, Classen, AT, **Austin, EE**, Norby, RJ & Schadt, CW. 2010. Soil Microbial Responses to Multiple Experimental Climate Change Drivers. *Applied and Environmental Microbiology*. 76: 999-1007.

Matheny, PB, **Austin, EE**, Birkebak, JM, & Wolfenbarger, AD. 2010. *Craterellus fallax*, a Black Trumpet mushroom from eastern North America with a broad host range. *Mycorrhiza*. 20: 569-575

**Austin, EE**, Castro, HF, Schadt, CW, Sides, KT, & Classen, AT. 2009. Assessment of 10 years of CO<sub>2</sub> fumigation on soil microbial communities and function in a sweetgum plantation. *Soil Biology and Biochemistry*. 41: 514-520.

## **Mentoring**

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Directed undergraduate research: Matthew Floyd's summer internship research project "Wood-inhabiting arthropods respond to warming differently at two sites"

Mentored undergraduate Students: Matthew Floyd, Stephanie Jensen, Danny Lusk, Lauren Breza, Heather Tran, and Sarah Wood at UT Anthony Guidice, Richard Shepardson, Myrilla Hartkopf, and Taylor Field at UNH

Mentored High School Students' projects: Lauren Legget & Brittany Lucas "Isolation and amplification of Acidobacteria from soils in a multifactor Climate Change Experiment" Sarah Kortebein "Will Climate Change Impact Bacterial Communities?" at Oak Ridge National Laboratory

## **Fellowships and Awards**

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National Science Foundation (NSF) Graduate Research Fellowship (GRFP) 2010 - 2013	~\$100,000
University of Tennessee Science Alliance Award 2012	\$3,000
Ecology and Evolutionary Biology Graduate Student Summer Funding 2011	\$1,500
Graduate Researchers in Ecology, Behavior, and Evolution (GREBE) Travel grants 2010- 11	\$300.00
National Science Foundation Graduate Research Fellows Travel Award 2011	\$1,000
Federation of European Microbiological Societies (FEMS) Young Scientist Meeting Grant 2011	€400.00
Ecological Society of America (ESA) Soil Ecology Section (SES) Student travel award 2010	\$600.00
Travel award from the Fungal Environmental Sampling and Informatics Network 2008	\$750.00
NSF Research Experience for Undergraduates- Harvard Forest 2005	~\$4,800

## **Outreach**

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Founding member of the South East New Hampshire chapter of "Showing up for Racial Justice"

Started and led a social justice reading group for primarily white graduate students, faculty, and staff at UNH

Advisor to graduate student LGBTQA group "Stonewall grads" at the University of New Hampshire

Member of the University of New Hampshire Black Student Union and Women in Science

## **Service**

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Invited reviewer for Soil Biology and Biochemistry, PLoS one, Soil Science Society of America Journal, Climatic Change, Ecosystems, and Fungal Ecology

Council member of the Institute on Religion in an Age of Science (IRAS) [www.iras.org](http://www.iras.org) 2015-present

Chair of the IRAS 2017 annual meeting "The Wicked Problem of Climate Change: What can it do for us?"

Judge for the New Hampshire NCRS soil judging contest in Durham, NH 2016

Developed a booth "More than a Mushroom" for the US Science and Engineering Festival in 2012.

Designed and taught "Fungus Among Us" "Kids U" summer course, grades 6-9, June 2011, June 2012

Organized Local mushroom forays for public attendance in Knoxville 2010

Judge at the Tennessee Science Bowl in Oak Ridge, TN 2008

Designed and led a workshop for "Girls Day in the Lab" at Hampshire College 2006

### **Selected abstracts \*indicates student co-author**

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**Austin, EE**, Wickings, K, McDaniel M, Robertson, PG, Grandy, AS. 2016. The fate of cover crop root and shoot carbon belowground in a corn bioenergy system. American Geophysical Union annual fall meeting, San Francisco, CA.

**Austin, EE** and Grandy, AS, 2015 More roots than shoots in soil carbon. Soil Ecology Society annual meeting Colorado Springs, CO.

Grandy, AS, and **Austin, EE**, 2015 A salute to roots: microbes, rhizodeposits and soil physical processes drive preferential decomposition and stabilization of root carbon. Ecological Society of America annual meeting, Baltimore, MD. *Invited talk*

**Austin, EE**, Schadt, CW, Dunn, RR, Sanders, NJ, and Classen, AT, 2014 The effects of warming on wood decomposition and decomposer communities differ between two sites. Ecological Society of America annual meeting, Sacramento, CA.

**Austin, EE**, Schadt, CW, and Classen, AT, 2012. Wood decomposing fungal community structure and function differ across decay stages of wood, but respond similarly to temperature. Ecological Society of America annual meeting, Portland OR.

Floyd, MS\*, **Austin, EE**, Classen, AT, 2012. Warming interacts with location to structure arthropod communities in decomposing logs over time. Exhibition of Undergraduate Research and Creative Achievement (EURECA). Knoxville, Tennessee.

**Austin, EE**, Classen, AT, and Schadt, CW, 2011. The temperature response of fungal activity varies across stages of wood decomposition. Ecology of Soil Microorganisms: Microbes as important drivers of soil processes. Federation of European Microbiological Societies International meeting, Prague, Czech Republic

**Austin, EE**, Classen, AT, and Schadt, CW, 2010 There is little variation in lignocellulosic fungal community structure on decomposing wood of two species *Liquidambar styraciflua* and *Pinus taeda* across 3 sites in Oak Ridge, TN. Ecological Society of America annual meeting, Pittsburgh, PA

**Austin, EE**, Classen, AT, and Schadt, CW. 2009. Lignocellulosic fungal community structure on decomposing wood of two species across 3 sites in Oak Ridge, TN. Soil Ecology Society annual meeting Burlington, VT

**Austin, EE**, Castro, HF, Classen, AT, and Schadt, CW. 2008. Microbial community structure shifts in a multifactor climate change experiment. Ecological Society of America annual meeting. Milwaukee, WI.

Leggett, L\*, Lucas, B\*, **Austin, EE**, Castro, HF and Schadt, CW. 2008. Soil Acidobacteria Prove Difficult to Culture. Spring Poster Session: DOE Higher Education Research Experiences (HERE) and the Tennessee Governor's Academy. Oak Ridge National Laboratory, TN.

**Austin, EE**, Castro, HF, Schadt, CW, Sides, KT, and Classen, AT. 2007. Effects of elevated [CO<sub>2</sub>] on soil microbial community structure and function. Southeastern Population Ecology and Evolutionary Genetics conference, Great Smoky Mountain National Park, Tennessee.