

Megan Leigh Mobley

<http://www.megmobley.com> | mobleyme@oregonstate.edu | 541.737.5751

Education

Ph.D. Ecology, 2011, Duke University, Durham, NC.
B.S. Environmental Sciences, 2004, Duke University, Durham, NC

Appointments

2014-present Instructor, Sustainability Double-Degree Program and Department of Crop and Soil Science, Oregon State University, Corvallis, OR
2015-2016 Web Manager, Society for Ecological Restoration NW chapter, Seattle, WA
2013-2015 Junior Editor, American Journal Experts, Durham, NC
2012-2014 Postdoctoral Research Associate, University of Wyoming, Laramie, WY
2006-2011 Graduate Student and Teaching Assistant, Nicholas School of the Environment, Duke University, Durham, NC
2005-2006 Environmental Scientist, Technical Forestry Services, Greybull, WY
2004-2005 Research Technician, Nicholas School of the Environment, Duke University
2003-2004 Research Technician, Department of Biology, Duke University
2003 REU participant, UColorado Mountain Research Station, Nederland, CO
2002 NSF Teaching Fellow, Duke University Marine Laboratory, Beaufort, NC
2002 Research Technician, Nicholas School of the Environment, Duke University

Publications

Parolari, AJ, **ML Mobley**, AR Bacon, GG Katul, DD Richter, and A Porporato. 2017. Boom and bust carbon-nitrogen dynamics during reforestation. *Ecological Modelling* **360**: 108-119. doi: <https://doi.org/10.1016/j.ecolmodel.2017.06.023>

Avirmed, O, WK Lauenroth, IC Burke, and **ML Mobley**. 2015. Natural recovery of a sagebrush plant community: results from 30-88 year old disturbed sites. *Ecosphere* **6**:art115. doi: 10.1890/ES14-00175.1

Korfanta, NK, **ML Mobley**, and IC Burke. 2015. Fertilizing western rangelands for mule deer: A sound mitigation strategy? *Wildlife Society Bulletin* **39**:1-8. doi: 10.1002/wsb.519

Mobley, ML, K Lajtha, MG Kramer, AR Bacon, PR Heine, DD Richter. 2015. Surficial gains and subsoil losses of soil C and N during secondary forest development. *Global Change Biology* **21**:986-996. doi: 10.1111/gcb.12715

Richter, DD, AR Bacon, Z Brecheisen, and **ML Mobley**. 2015. Soil in the Anthropocene. *IOP Earth and Environmental Science* **25**:012010. doi:10.1088/1755-1315/25/1/012010

Avirmed, O, IC Burke, **ML Mobley**, WK Lauenroth, and DR Schlaepfer. 2014. Natural recovery of soil organic matter in 30-90 year old abandoned oil and gas wells in sagebrush steppe. *Ecosphere* **5**:art24. doi:10.1890/ES13-00272.1

Mobley, ML, MJ Cleary, IC Burke. 2014. Inorganic nitrogen supply and dissolved organic nitrogen abundance across the US Great Plains. *PLoS ONE* **9**:e107775. doi: 10.1371/journal.pone.0107775

Mobley, ML, RL McCulley, IC Burke, G Peterson, DS Schimel, CV Cole, ET Elliott, DG Westfall. 2014. Grazing and no-till cropping impacts on N retention in dryland agroecosystems. *Journal of Environmental Quality* **43**:1963-1971. doi: 10.2134/jeq2013.12.0530

Richter, DD, AR Bacon, SA Billings, D Binkley, M Buford, MA Callahan, AE Curry, RL Fimmen, AS Grandy, PR Heine, M Hofmockel, JA Jackson, E Lemaster, J Li, D Markewitz, **ML Mobley**, MW Morrison, MS Strickland, T Waldrop, and CG Wells. 2014. Evolution of Soil, Ecosystem, and Critical Zone Research at the Calhoun Experimental Forest, In: *USDA Forest Service Experimental Forests and Ranges: Research for the Long Term*. DC Hayes, S Stout, R Crawford, and A Hoover (eds). Springer Verlag, NY.

Mobley, ML, DD Richter, PR Heine. 2012. Accumulation and decay of woody detritus in a mature southeastern loblolly pine stand. *Canadian Journal of Forest Research* **43**:109-118. doi: 10.1139/cjfr-2012-0222

Richter, DD, SS Andrews, AR Bacon, S Billings, CA Cambardella, N Cavallaro, JE DeMeester, AJ Franzluebbers, S Grandy, S Grunwald, J Gruver, AS Hartshorn, H Janzen, M Kramer, JK Ladha, K Lajtha, G Liles, D Markewitz, PJ Megonigal, A Mermut, **ML Mobley**, C Palm, C Rasmussen, CJ Richardson, DA Robinson, P Smith, C Stiles, RL Tate, A Thompson, AJ Tugel, H van Es, L West, S Wills, D Yaalon, and TM Zobeck. 2011. Soils and human-soil relations are changing rapidly: Proposals from SSSA's new Cross-Division Work Group on Soil Change. *Soil Science Society of America Journal* **75**:2079-2084. doi: 10.2136/sssaj2011.0124

Richter, DD and **ML Mobley**. 2009. Monitoring Earth's Critical Zone. *Science* **326**:1067-1068. doi: 10.1126/science.1179117

Galik, CS, **ML Mobley**, DD Richter. 2009. A virtual "field test" of forest management carbon offset protocols: the influence of accounting. *Mitigation and Adaptation of Strategies for Global Change* **14**: 677-690. doi: 10.1007/s11027.009.9190.9

Galik, CS, DD Richter, **ML Mobley**, LP Olander, and BC Murray. 2008. A Critical Comparison and Virtual "Field Test" of Forest Management Carbon Offset Protocols. Climate Change Policy Partnership, Duke University, Durham, NC. [link](#)

Suding, K, I Ashton, H Bechtold, WD Bowman, **ML Mobley** and R Winkleman. 2008. Plant and microbe contribution to community resilience in a directionally changing environment. *Ecological Monographs* **78**: 313-329. doi: 10.1890/07.1092.1

Grants and Recognition

2013	Associate Faculty Member Travel Grant, Faculty of 1000 Prime, \$250
2012	Dissertations Initiative for the Advancement of Climate Change Research (DISCCRS) Symposium VII Scholar
2011	Duke University Conference Travel Award to AGU Fall Meeting, \$715
2011	ESA/SERDP Travel Award to ESA Annual Meeting, \$500
2011	Oosting Fellow, Duke University
2010	Duke University Conference Travel Award to AGU Fall Meeting, \$715
2010	ESA/SERDP Travel Award to ESA Annual Meeting, \$500
2010	NSF Doctoral Dissertation Improvement Grant, \$15000
2009-2010	E. Bayard Halsted Fellow, Duke University
2009-2010	Preparing Future Faculty Fellow, Duke University
2006-2010	James B. Duke Fellow, Duke University
2009	Duke University Conference Travel Award to SSSA Annual Meeting, \$900
2008	NSF Graduate Research Fellowship Honorable Mention
2007	Duke University Predissertation Travel Award to Harpenden, UK, \$1300
2005	NSF REU Travel Award to ESA Annual meeting, \$1250
2004	US Forest Service Science Award, Duke University
2004	Graduation with Distinction in Environmental Sciences, Duke University
2001-2004	A. Pat Brown Environmental Science Scholar, Duke University

Courses Taught

Winter 2018	SOIL 205/206 Soil Science, 4 credits, 86 students SUS 102 Intro to Environmental Science and Sustainability (Ecampus), 4 credits, 90 students
Fall 2017	CSS 205 Soil Science (Ecampus), 4 credits, 58 students, median student evaluation = 5.6/6 (where 6 is excellent) SUS 102 Intro to Environmental Science and Sustainability (Ecampus), 4 credits, 70 students, median student evaluation = 4.7/6
Spring 2017	CSS 205 Soil Science (Ecampus), 4 credits, 125 students, median student evaluation = 5.2/6 (where 6 is excellent) SUS 102 Intro to Environmental Science and Sustainability (Ecampus), 4 credits, 78 students, median student evaluation = 5.0/6
Winter 2017	SOIL 205/206 Soil Science, 4 credits, 118 students, median student evaluation = 5.4/6 SUS 102 Intro to Environmental Science and Sustainability (Ecampus), 4 credits, 141 students, median student evaluation = 4.8/6
Fall 2016	CSS 205 Soil Science (Ecampus), 4 credits, 67 students, median student evaluation = 5.3/6 (where 6 is excellent) SUS 102 Intro to Environmental Science and Sustainability (Ecampus), 4 credits, 137 students, median student evaluation = 4.7/6
Summer 2016	SUS 102 Intro to Environmental Science and Sustainability, 4 credits, 18 students, median student evaluation = 5.8/6
Spring 2016	CSS 205 Soil Science (Ecampus), 4 credits, 87 students, median student evaluation = 5.0/6 (where 6 is excellent) SUS 102 Intro to Environmental Science and Sustainability, 4 credits, 102 students, median student evaluation = 4.9/6
Winter 2016	SOIL 205/206 Soil Science, 4 credits, 156 students, median student evaluation = 4.7/6 SUS 102 Intro to Environmental Science and Sustainability (Ecampus), 4 credits, 110 students, median student evaluation = 4.8/6
Fall 2015	CSS 205 Soil Science (Ecampus), 4 credits, 72 students, median student evaluation = 5.2/6 SUS 102 Intro to Environmental Science and Sustainability (Ecampus), 4 credits, 135 students, median student evaluation = 5.2/6
Summer 2015	SUS 102 Intro to Environmental Science and Sustainability, 4 credits, 20 students, median student evaluation = 5.6/6
Spring 2015	SUS 102 Intro to Environmental Science and Sustainability, 4 credits, 96 students, median student evaluation = 4.8/6
Winter 2015	SUS/SOIL 102 Intro to Environmental Science and Sustainability, 4 credits, 105 students, median student evaluation = 4.4/6
Fall 2013	ENR 1100 Environment and Natural Resources Problems and Policies, University of Wyoming, 2 credits, 19 students, mean student evaluation = 1.6/5 (where 1 is excellent)

Invited Oral Presentations

Mobley, ML. 2015. Long-Term Soil-Ecosystem Responses to Ag and Forest Management. Plant Science Spring Seminar Series, Oregon State University, Corvallis, OR.

Mobley, ML, DD Richter, K Lajtha, M Kramer, PR Heine. 2012. Deep soil carbon loss under an aggrading old-field forest. 5th International Workshop on Soil and Sedimentary Organic Matter Stabilization and Destabilization (SOM5). Monte Verita, Switzerland.

Mobley, ML. 2012. Field-to-forest succession and changes in the quantity and distribution of ecosystem carbon and nitrogen. University of Wyoming Botany Seminar, Laramie, WY.

Mobley, ML, DD Richter, K Lajtha, M Kramer. 2011. Exploring deep soil carbon loss following field-to-forest land use change. American Geophysical Union Fall Meeting. San Francisco, CA.

Mobley, ML, DD Richter, PR Heine, SA Billings. 2011. Soil Carbon Change during Fifty Years of Old-Field Forest Development. Oosting Ecology Seminar, Duke University, Durham, NC.

Mobley, ML and DD Richter. 2008. Fifty Years of Forest Carbon Budgets at the Calhoun Experimental Forest: What have we learned? Joint Meeting of the Geological Society of America and Soil Science Society of America. Houston, TX.

Oral Presentations

Mobley, ML, RL McCulley, IC Burke, GA Peterson, DS Schimel, CV Cole, ET Elliott, DG Westfall. 2013. Perennial plant cover controls soil nitrogen retention in managed current and former grasslands of the semi-arid western Great Plains. Ecological Society of America Annual Meeting, Minneapolis, MN.

Mobley, ML. 2012. Dead Leaves (and Trees) and Dirty Ground: The distribution of forest carbon among living and dead materials. DISsertations initiative for the advancement of Climate Change ReSearch (DISCCRS) Symposium VII. Colorado Springs, CO.

Mobley, ML and DD Richter. 2012. Changes in dead plant carbon over 50 years of old-field forest development. Ecological Society of America Annual Meeting, Portland, OR.

Mobley, ML. 2011. An ecosystem approach to dead plant carbon over 50 years of old-field forest development. Duke University Program in Ecology Seminar, Durham, NC.

Mobley, ML, DD Richter, PR Heine. 2011. Carbon and nitrogen storage and decomposition in decaying taproots at the Calhoun Experimental Forest, SC. Ecological Society of America Annual Meeting. Austin, TX.

Mobley, ML, PR Heine, SA Billings, K Lajtha, MG Kramer, DD Richter. 2010. Soil Carbon Change during Fifty Years of Old-Field Forest Development. American Geophysical Union Fall Meeting. San Francisco, CA.

Mobley, ML, DD Richter, PR Heine. 2010. Accumulation and decay of coarse woody detritus over 50 years of pine forest development. Ecological Society of America Annual Meeting. Pittsburgh, PA.

Mobley, ML, DD Richter, S Qian. 2009. Transformations of pine forest-derived dissolved organic matter in a temperate zone soil. Soil Science Society of America Annual Meeting. Pittsburgh, PA.

Mobley, ML, DD Richter, S Qian. 2009. Transformations of pine forest-derived dissolved organic matter in a temperate zone soil. Ecological Society of America Annual Meeting. Albuquerque, NM.

Service

Ongoing	Reviewer: <i>Biogeochemistry, Biogeosciences, Ecosphere, Ecosystems, Environmental Science & Technology, Forest Ecology & Management, Geoderma, Global Change Biology, Journal of Geophysical Research-Biogeosciences, Journal of Geoscience Education, PLOS-ONE, Soil Science Society of America Journal</i>
2017-present	Leadership Team, 500 Women Scientists Corvallis Pod
2015-present	Board of Directors, Corvallis Environmental Center
2015-present	Board of Readers, <i>Biogeochemistry</i>
2015-2016	Advisory Panel, Calhoun Critical Zone Observatory

2014-2015	Website Manager, Northwest Association of Environmental Professionals
2013	Judge, GLOBE 2013 Student Virtual Conference
2013	Reviewer, DISCCRS VIII applications
2013	Judge, Wyoming State Science Fair
2012-present	Associate Faculty Member in Ecology, Faculty of 1000 Prime
2011	Volunteer, Meet a Scientist Program, Museum of Life + Science, Durham, NC
2011	Organizer, Global Soil Change Workshop III, Duke University
2011	Organizer, Sustainability across the Curriculum Workshop, Duke University
2010-2011	President, Duke Chapter of Sigma Xi
2010	Reviewer: <i>Ecology of Dead Wood in the Southeast</i> . The Forest Guild, Santa Fe, NM
2010	Organizer, Science of Coffee event, Museum of Life + Science, Durham, NC
2009-2011	Education and Transportation subcommittees of the Duke Campus Sustainability Committee
2009	Organizer, Global Soil Change Workshop II, Duke University
2008-2011	Organizer, Periodic Tables Science Café
2007-2011	Selection Committee, University Program in Ecology Seminar
2007-2010	Vice President, Duke Chapter of Sigma Xi
2007-2009	Coordinator, Nicholas School of the Environment Graduate Seminar
2007	Organizer, Global Soil Change Workshop I, Duke University
2008	Mentor, Women and Math Mentoring Program

Professional memberships

American Association for the Advancement of Science
 American Association of University Professors
 American Geophysical Union; Biogeosciences Section
 Earth Science Women's Network
 Ecological Society of America; Biogeosciences Section
 GLOBE International Scientist Network
 National Association of Geoscience Teachers
 Soil Science Society of America; Forest, Range and Wildland Soils (S-7) Division

Collaborators (last 2 years)

Allan Bacon (UFlorida); David Bell (USFS); James Cassidy (Oregon State); Mark Harmon (Oregon State); Paul Heine (Duke); Gaby Katul (Duke); Kate Lajtha (Oregon State); Adam Lindsley (Oregon State); Deanna Lloyd (Oregon State); Anthony Parolari (Duke); Amilcare Porporato (Duke); Lorien Reynolds (Oregon State); Daniel Richter (Duke); Inara Scott (Oregon State); Kimberly Townsend (Oregon State)