# Linda T.A. van Diepen

Assistant Professor Soil Microbial Ecology
University of Wyoming
Department of Ecosystem Science and Management
1000 E. University Ave, Laramie, WY, 82071
linda.vandiepen@uwyo.edu, ++ 307-766-2781


## EDUCATION

2008 Ph.D. in Forest Science at Michigan Technological University, Houghton, MI, USA
2002 M.S. in Environmental Science at Wageningen University, Wageningen, the Netherlands
1999 B.S. in Environmental Chemistry at Hogeschool IJselland, Deventer, the Netherlands

## PROFESSIONAL EXPERIENCE

09/15-present **University of Wyoming** Laramie, WY
Assistant Professor Soil Microbial Ecology

10/13-08/15 **University of New Hampshire** Durham, NH
Research Scientist. Fungal ecology, fungal diversity and function in response to global change using –omics, biogeochemical and culture-based approaches.

10/10-09/13 **University of New Hampshire** Durham, NH
Postdoctoral fellow. Fungal ecology; decomposition dynamics of fungi in response to global change using –omics, biogeochemical and culture-based approaches.

10/09-09/10 **University of Michigan** Ann Arbor, MI
Postdoctoral fellow. Fungal ecology & evolution; polymorphism in/and function of mating genes of *Heterobasidion*, and mycorrhizal activity in soil as affected by nitrogen deposition.

1/09-8/09 **Michigan Technological University** Houghton, MI
Research Assistant. Follow-up research of PhD project focusing on fungal respiration and use of stable isotopes in mycorrhizal fungi.

9/04-12/08 **Michigan Technological University** Houghton, MI
Graduate Research Assistant. *Dissertation title:* The role and diversity of arbuscular mycorrhizal fungi in *Acer saccharum* dominated forest ecosystems under natural and N-amended conditions.

9/03-7/04 **Alterra, Dep. of Ecology & Environment** Wageningen, the Netherlands
Research Assistant. Involved collecting long-term chemical and biological data of streams within the Netherlands for analysis of changes in stream quality.

10/02-6/03 **UC Davis, Dep. of Wildlife, Fish & Conservation Biology** Davis, CA
Research Assistant. Research on the effect of foraging waterfowl on the depletion of weed seeds in a winter flooded rice field.

9/01-7/02 **UCDavis, Dep. of Agronomy & Range Science** Davis, CA
Graduate Research Assistant. *Final Thesis for M.S. in Environmental Science*. Research on changes in residue decomposition and N-cycling in winter flooded rice fields by foraging waterfowl using stable isotopes.

12/98-6/99 **Alterra, Dep. of Ecology & Environment** Wageningen, the Netherlands
Research Assistant. *Final thesis for B.S. in Environmental Chemistry*. Topic: Multivariate analyses of macrofauna data from water/soil samples to analyze the habitat systems in the large rivers in the Netherlands.

12/97-6/98 **CSIRO Land and Water** Adelaide, Australia
Research Assistant. *Internship for B.S. in Environmental Chemistry*. Topic: A study on the bioavailability of Pb from household dust in the gastrointestinal system with addition of phosphate.

## PUBLICATIONS

### Peer-reviewed publications

**Van Diepen**, **L.T.A.**, S.D. Frey, C.M. Sthultz, E.W. Morrison, R. Minocha, and A. Pringle, 2015. Changes in litter quality caused by simulated nitrogen deposition reinforce the N-induced suppression of litter decay. **Ecosphere** 6(10): 205. http://dx.doi.org/10.1890/ES15-00262.1

Crowther, T.W., S.M. Thomas, D.S. Maynard, P. Baldrian, K. Covey, S.D. Frey, **L.T.A. van Diepen**, and M.A. Bradford, 2015. Biotic interactions mitigate soil microbial feedbacks to climate change. **PNAS** 112: 7033-7038.

DeAngelis K.M., G. Pold, B.D. Topcuoglu, **L.T.A. van Diepen**, R.M. Varney, J.L. Blanchard, J. Melillo, and S.D. Frey, 2015. Long-term forest soil warming alters microbial communities in temperate forest soils. **Frontiers in Microbiology** 6: article 104.

**Van Diepen**, **L.T.A,** E.A. Hobbie, and J.E. Mohan, 2014. Fungi, ecosystems and global change. **Fungal Ecology** 10: 1-2.

Andrew, C.J., **L.T.A. van Diepen**, R.M. Miller, and E.A. Lilleskov, 2014. Quantifying aspen-associated mycorrhizal fungal production and respiration as a function of changing $CO_2$, $O_3$, and climatic variables. **Fungal Ecology** 10: 70-80.

Hobbie, E.A., K.S. Hofmockel, **L.T.A. van Diepen**, E.A. Lilleskov, A.P. Ouimette, and A.C. Finzi, 2014. Fungal carbon sources in a pine forest: evidence from a $^{13}C$-labeled global change experiment. **Fungal Ecology** 10: 91-100.

Hobbie, E.A., K.S. Hofmockel, **L.T.A. van Diepen**, E.A. Lilleskov, A.P. Ouimette, and A.C. Finzi, 2014. Fungal functioning in a pine forest: evidence from a $^{15}N$-labeled global change experiment. **New Phytologist** 201: 1431-1439.

**Van Diepen, L.T.A.**, Å. Olson, K. Ihrmark, J. Stenlid, and T.Y. James, 2013. Positive selection and extensive trans-specific polymorphism at the mating type locus of the root decay fungus *Heterobasidion.* **Molecular Biology and Evolution** 30: 2286–2301.

**Van Diepen, L.T.A.**, E. Entwistle, and D.R. Zak, 2013. Chronic nitrogen deposition and the composition of active arbuscular mycorrhizal fungi. **Applied Soil Ecology** 72: 62-68.

Nave, L.E., K.J. Nadelhoffer, J.M. Le Moine, **L.T.A. van Diepen**, J.K. Cooch, and N.J. van Dyke, 2013. Nitrogen uptake by trees and mycorrhizal fungi in a successional northern temperate forest: insights from multiple isotopic methods. **Ecosystems** 16: 590-603.

Olson, Å., A. Aerts, F. Asiegbu, L. Belbahri, O. Bouzid, A. Broberg, B. Canbäck, P.M. Coutinho, D. Cullen, K. Dalman, G. Deflorio, **L.T.A. van Diepen**, C. Dunand, S. Duplessis, M. Durling, P. Gonthier, J. Grimwood, C.G. Fossdal, D. Hansson, B. Henrissat, A. Hietala, K. Himmelstrand, D. Hoffmeister, N. Högberg, T.Y. James, M. Karlsson, A. Kohler, U. Kües, Y-H. Lee, Y-C. Lin, M. Lind, E. Lindquist, V. Lombard, S. Lucas, K. Lundén, E. Morin, C. Murat, J. Park, T. Raffaello, P. Rouzé, A. Salamov, J. Schmutz, H. Solheim, J. Ståhlberg, H. Vélëz, R.P. de Vries, A. Wiebenga, S. Woodward, I. Yakovlev, M. Garbelotto, F. Martin, I.V. Grigoriev, and J. Stenlid, 2012. Insight into trade-off between wood decay and parasitism from the genome of a fungal forest pathogen. **New Phytologist** 194: 1001-1013.

**Van Diepen, L.T.A.**, E.A. Lilleskov, and K.S. Pregitzer, 2011. Simulated nitrogen deposition affects community structure of arbuscular mycorrhizal fungi in northern hardwood forests. **Molecular Ecology** 20: 799-811.

James, T.Y., M. Lee, and **L.T.A. van Diepen**, 2011. A single mating-type locus composed of homeodomain genes promotes nuclear migration and heterokaryosis in the white-rot fungus *Phanerochaete chrysosporium*. **Eukaryotic Cell** 10: 249-261.

**Van Diepen, L.T.A.**, E.A. Lilleskov, K.S. Pregitzer, and R.M. Miller, 2010. Simulated nitrogen deposition causes a decline of intra- and extraradical abundance of arbuscular mycorrhizal fungi and changes in microbial community composition in northern hardwood forests. **Ecosystems** 13: 683-695.

**Van Diepen, L.T.A.**, E.A. Lilleskov, K.S. Pregitzer, and R.M. Miller, 2007. Decline of arbuscular mycorrhizal fungi in northern hardwood forests exposed to chronic nitrogen additions. **New Phytologist** 176: 175-183.

**Van Diepen, L.T.A.**, J.W. van Groenigen, J.M. Eadie, and C. van Kessel, 2004. Isotopic evidence for changes in residue decomposition and N-cycling in winter flooded rice fields by foraging waterfowl. **Agriculture, Ecosystems and Environment** 102: 41-47.

### Other publications

**van Diepen, L.T.A.**, 2008. The role and diversity of arbuscular mycorrhizal fungi in *Acer saccharum* dominated forest ecosystems under natural and N-amended conditions. Doctoral dissertation. Michigan Technological University, Houghton, Michigan. 99 p.

**van Diepen, L.T.A.**, and P.F.M. Verdonschot, 2001. Habitat systems in the major rivers in the Netherlands on the basis of macro fauna. A summary. Alterra Report, 176 p.

## EXTERNAL RESEARCH SUPPORT

### Funded proposals

***DOE JGI CSP*:** Department of Energy's Joint Genome Institute (Community Sequencing Program). Received grant to sequence 2TB of RNA/DNA extracted from soil samples to study the effects of soil warming on microbial community composition and gene expression. Co-PI with Drs. Jeffrey Blanchard, Kristen DeAngelis, Jerry Melillo, and Serita Frey. Awarded Fall 2012 (estimated to be equivalent to **~$50,000**).

## ABSTRACTS, PRESENTATIONS, AND POSTERS ~ denotes invited speaker

Blanchard, J.L., L. Alteio, W. Rodriguez, G. Pold, K.M. DeAngelis, S.D. Frey, **L.T.A. van Diepen**, and J.M. Melillo, 2015. A holistic view of soil ecosystems through integrative eukaryotic and prokaryotic metatranscriptome analysis. Poster presentation and published abstract. Ecological Society of America Annual meeting, Baltimore, MD, August 9-14, 2015.

Chen, J., **L.T.A. van Diepen**, K.S. Hofmockel, and E.A. Hobbie, 2015. Isotopic analysis of protein and structural material of sporocarps reveals fungal C and N sources. Poster presentation and

published abstract. Ecological Society of America Annual meeting, Baltimore, MD, August 9-14, 2015.

Frey, S.D., A.R. Contosta, M.A. Knorr, and **L.T.A. van Diepen**, 2015. Effects of warming on soil microbial communities and feedbacks to nitrogen and carbon fluxes in a mixed temperate forest ecosystem. Oral presentation and published abstract. Ecological Society of America Annual meeting, Baltimore, MD, August 9-14, 2015.

Landis, E.A., **L.T.A. van Diepen**, A. Pringle, and S.D. Frey, 2015. Sustained effects of chronic nitrogen addition on the capacity of fungi to degrade lignin. Oral presentation and published abstract. Ecological Society of America Annual meeting, Baltimore, MD, August 9-14, 2015.

Pold, G., J.L. Blanchard, S.D. Frey, J.M. Melillo, **L.T.A. van Diepen**, and K.M. DeAngelis, 2015. Forest soil metagenomes demonstrate chronic soil warming induces changes in microbial functional potential. Oral presentation and published abstract. Ecological Society of America Annual meeting, Baltimore, MD, August 9-14, 2015.

**~ van Diepen, L.T.A.**, and S.D. Frey, 2015. Using soil metatranscriptomics to understand fungal functioning in a changing climate. Invited speaker Organized Oral Session 34: Molecular Insights into Microbial Feedbacks to Climate. Ecological Society of America Annual meeting, Baltimore, MD, August 9-14, 2015.

Blanchard, J.L., L. Alteio, W. Rodriguez, G. Pold, K.M. DeAngelis, S.D. Frey, **L.T.A. van Diepen**, and J.M. Melillo, 2015. A holistic view of soil ecosystems through integrative eukaryotic and prokaryotic metatranscriptome analysis. Poster presentation and published abstract. Soil Ecology Society Biennial meeting, Colorado Springs, CO, June 8-12, 2015.

Frey, S.D., M. Anthony, E.A. Landis, E.W. Morrison, **L.T.A. van Diepen**, and A. Pringle, 2015. Soil fungi in a warmer, fertilized world. Oral presentation and published abstract. Soil Ecology Society Biennial meeting, Colorado Springs, CO, June 8-12, 2015.

Fissore, C., **L.T.A van Diepen**, D. Wixon, E. Marin-Spiotta, and C.P. Giardina, 2014. Temperature and Microbial Activity Effects on Soil Carbon Stabilization, Abstract B13N-0061, poster presented at 2014, Fall Meeting, AGU, San Francisco, CA, December 15-19, 2014.

Fissore, C., **L.T.A van Diepen**, D. Wixon, E. Marin-Spiotta, and C.P. Giardina, 2014. Temperature and Microbial Activity Effects on Soil Carbon Stabilization. Poster presentation and published abstract. The Sixth International Workshop on Soil and Sedimentary Organic Matter Stabilization and Destabilization (SOM6), Kiawah Island, SC, October 5-9, 2014.

DeAngelis, K., G. Pold, B. Topcuoglu, **L.T.A. van Diepen,** W. Rodriguez, J.L. Blanchard, J.M. Mellilo, and S.D. Frey, 2014. Soil microbial oligotrophs respond to long-term warming in temperate forest soil. Oral presentation and published abstract. Ecological Society of America Annual meeting, Sacramento, CA, August 10-15, 2014.

Landis E.A., **L.T.A. van Diepen**, A. Pringle, and S.D. Frey, 2014. Sustained effects of chronic nitrogen addition on the capacity of fungi to degrade lignin. Poster presentation and published abstract. Ecological Society of America Annual meeting, Sacramento, CA, August 10-15, 2014.
Morrison, E.W., S.D. Frey, **L.T.A. van Diepen,** C.M. Sthultz, and A. Pringle, 2014. Contrasting effects of warming and simulated nitrogen deposition on standing and active fungal communities

and their functioning in litter decomposition in a temperate hardwood forest. Oral presentation and published abstract. Ecological Society of America Annual meeting, Sacramento, CA, August 10-15, 2014.

**~ van Diepen, L.T.A.**, E.W. Morrison, C.M. Sthultz, A. Pringle and S.D. Frey, 2014. Changes in litter quality and fungal physiology enhance negative effect of simulated nitrogen addition on litter decay. Invited speaker Organized Oral Session 35: Whether in Life or in Death: Fresh Perspectives on How Plants Affect Biogeochemical Cycling. Ecological Society of America Annual meeting, Sacramento, CA, August 10-15, 2014.

Hobbie, E.A., K.S. Hofmockel, and **L.T.A. van Diepen,** 2013. Fungal functioning in a pine forest: evidence from a $^{15}$N-labeled and $^{13}$C-labeled global change experiment. Oral presentation and published abstract. Ecological Society of America Annual meeting, Minneapolis, MN, August 4-9, 2013.

Sadowsky, J.J., **L.T.A. van Diepen**, and S.D. Frey, 2013. Chronic nitrogen addition increases carbohydrolase and oxidase production by ectomycorrhizal fungi. Oral presentation and published abstract. Ecological Society of America Annual meeting, Minneapolis, MN, August 4-9, 2013.

**van Diepen, L.T.A.**, C.M. Sthultz, A. Pringle, E.W. Morrison, and S.D. Frey, 2013. Functioning of decomposer fungi in a changing climate. Oral presentation and published abstract. Ecological Society of America Annual meeting, Minneapolis, MN, August 4-9, 2013.

Graichen, L.D., **van Diepen, L.T.A.**, and S.D. Frey, 2013. Effects of increased N deposition on functioning of decomposer fungi. Poster presentation and published abstract. Soil Ecology Society Biennial meeting, Camden, NJ, June 11-14, 2013.

Sadowsky, J.J., **L.T.A. van Diepen**, and S.D. Frey, 2013. Chronic nitrogen enrichment increases extracellular carbohydrolase and oxidase production by ectomycorrhizal fungi – evidence to support the 'Plan B' hypothesis? Oral presentation and published abstract. Soil Ecology Society Biennial meeting, Camden, NJ, June 11-14, 2013.

**van Diepen, L.T.A.**, W.K. Thomas, and S.D. Frey, 2013. Metatranscriptomics reveals functioning of soil fungi exposed to multiple climate change factors. Oral presentation and published abstract. Soil Ecology Society Biennial meeting, Camden, NJ, June 11-14, 2013.

**van Diepen, L.T.A.**, C.M. Sthultz, A. Pringle, E.W. Morrison, and S.D. Frey, 2013. Nitrogen additions induce shifts in litter chemistry and extracellular enzyme pools that increase soil carbon storage. Poster presentation and published abstract. Soil Ecology Society Biennial meeting, Camden, NJ, June 11-14, 2013.

Hobbie, E.A., K. Hofmockel, **L.T.A. van Diepen**, and A.P. Ouimette, 2012. Fungal Functioning In A Pine Forest: Evidence From A $^{15}$N-Labeled Global Change Experiment. Abstract B51G-0648, poster presented at 2012 Fall Meeting, American Geophysical Union, San Francisco, CA, December 3-7, 2012.

**~ van Diepen, L.T.A.**, E.W. Morrison, C.M. Sthultz, A. Pringle and S.D. Frey, 2012. Diversity and function of decomposer fungi in a changing climate. Invited speaker. Long Term Ecological Research All Scientists Meeting, Estes Park, CO, September 10-13, 2012.

**van Diepen, L.T.A.**, W.K. Thomas, and S.D. Frey, 2012. Soil metatranscriptomics of a temperate forest under increased nitrogen deposition; expression of transcripts encoding lignocellulolytic enzymes. Poster presentation. Long Term Ecological Research All Scientists Meeting, Estes Park, CO, September 10-13, 2012.

Hobbie, E.A., K. Hofmockel, **L.T.A. van Diepen,** E.A. Lilleskov, A.P. Ouimette, and A. Finzi, 2012. Stories a mushroom told me: $^{13}C$ and $^{15}N$ in a pine FACE study reveal fungal functioning. Oral presentation. MassMyco meeting, Clark University, Worcester, MA, October 27, 2012.

**van Diepen, L.T.A.**, W.K. Thomas, and S.D. Frey, 2012. Soil metatranscriptomics in a temperate forest under increased nitrogen deposition; expression of transcripts encoding fungal lignocellulolytic enzymes. Oral presentation. MassMyco meeting, Clark University, Worcester, MA, October 27, 2012.

Sadowsky, J.J., **L.T.A. van Diepen**, and S.D. Frey, 2012. Convergence and divergence in potential rates of enzymatic C, N, and P hydrolysis and soil organic matter oxidation by ectomycorrhizal fungi and free-living decomposer communities following exposure to long-term nitrogen deposition. Oral presentation. MassMyco meeting, Clark University, Worcester, MA, October 27, 2012.

Sadowsky, J.J., **L.T.A. van Diepen**, and S.D. Frey, 2012. Contributions of ectomycorrhizal fungi to organic matter formation and decomposition in response to chronic N deposition. Poster presentation and published abstract. Ecological Society of America Annual meeting, Portland, OR, August 5-10, 2012.

Sthultz, C.M., **L.T.A. van Diepen**, S.D. Frey, and A. Pringle, 2012. Influences of nitrogen deposition and soil warming on saprophytic fungal community structure, fungal growth, and litter decomposition. Oral presentation and published abstract. Ecological Society of America Annual meeting, Portland, OR, August 5-10, 2012.

**van Diepen, L.T.A.**, W.K. Thomas, and S.D. Frey, 2012. Soil metatranscriptomics reveals changes in expression of transcripts encoding lignocellulolytic enzymes in the forest floor of a temperate forest under increased N deposition. Oral presentation and published abstract. Ecological Society of America Annual meeting, Portland, OR, August 5-10, 2012.

Sadowsky, J.J., **L.T.A. van Diepen**, and S.D. Frey, 2012. Contributions of ectomycorrhizal fungi to organic matter formation and degradation in response to chronic nitrogen deposition. Annual meeting of the Mycological Society of America, New Haven, CT, July 15-19, 2012.

Sthultz, C.M., **L.T.A. van Diepen**, S.D. Frey, and A. Pringle, 2012. Influences of nitrogen deposition and soil warming on saprophytic fungal community structure, fungal growth, and litter decomposition. Annual meeting of the Mycological Society of America, New Haven, CT, July 15-19, 2012.

**van Diepen, L.T.A.**, W.K. Thomas, and S.D. Frey, 2012. Soil metatranscriptomics reveals changes in expression of transcripts encoding lignocellulolytic enzymes in the forest floor of a temperate forest under increased nitrogen deposition. Annual meeting of the Mycological Society of America, New Haven, CT, July 15-19, 2012.

~ **van Diepen, L.T.A.,** E.W. Morrison, A. Pringle, C.M. Sthultz, and S.D. Frey, 2011. Diversity, function and evolution of decomposer fungi in a changing climate. Invited speaker at 3rd Annual Argonne Soil Metagenomics Workshop, Chicago, IL, October 5-7, 2011.

**van Diepen, L.T.A.**, S.D. Frey, A. Pringle, C.M. Sthultz, E.W. Morrison, and S. Pérez, 2011. Evolution of decomposer fungi in a changing climate. Microbial Ecology Symposium, Harvard Forest, Petersham, MA, September 20, 2011.

Sthultz, C.M., A. Pringle J. Hess, **L.T.A. van Diepen**, and S.D. Frey, 2011 Influence of global change on saprophytic fungal community structure and the role of endophytes as latent decomposers. Microbial Ecology Symposium, Harvard Forest, Petersham, MA, September 20, 2011.

Sthultz, C.M., A. Pringle, **L.T.A. van Diepen**, and S.D. Frey, 2011. Influence of nitrogen deposition on saprophytic fungal community structure and the role of endophytes as latent decomposers. Oral presentation, annual meeting of the Mycological Society of America, Fairbanks, AK, August 1-6, 2011.

**van Diepen, L.T.A.**, S.D. Frey, A. Pringle, C.M. Sthultz, E.W. Morrison, and S. Pérez, 2011. Evolution of decomposer fungi in a changing climate. Oral presentation, annual meeting of the Mycological Society of America, Fairbanks, AK, August 1-6, 2011.

Lilleskov, E.A., **L.T.A. van Diepen**, C.J. Andrew, and C.J.Kratz, 2010. Temperature dependence of respiration rates of mycorrhizal fungi: Acclimation or limitation? Oral presentation and published abstract. Ecological Society of America Annual meeting, Pittsburgh, PA, August 1-6, 2010.

**Van Diepen, L.T.A.**, E.A. Lilleskov, C.J. Kratz, and C.J. Andrew, 2010. Dependence of ectomycorrhizal fungi of mature trees on current photosynthate: An isotope study. Oral presentation and published abstract. Ecological Society of America Annual meeting, Pittsburgh, PA, August 1-6, 2010.

Lilleskov, E.A., **L.T.A. van Diepen**, and C.J. Andrew, 2009. How quickly do soil fungi breathe? Estimating respiration of soil fungi *in situ* and in the lab. Oral presentation, annual meeting of the Mycological Society of America, Snowbird, UT, July 25-29, 2009.

**Van Diepen, L.T.A.**, E.A. Lilleskov, and K.S. Pregitzer. 2008. Effects of chronic nitrogen additions on diversity and community composition of arbuscular mycorrhizal fungi in northern hardwood forests. Oral presentation and published abstract. Ecological Society of America Annual meeting, Milwaukee, WI, August 3-8, 2008.

**Van Diepen, L.T.A.**, E.A. Lilleskov, and K.S. Pregitzer, 2007. Decline of arbuscular mycorrhizal fungi in northern hardwood forests exposed to chronic nitrogen additions. Poster presentation at MTU Ecosystem Science Center Graduate Research Forum, February 23, 2007. Awarded Best Poster.

**Van Diepen, L.T.A.**, E.A. Lilleskov, and K.S. Pregitzer, 2006. Decline of arbuscular mycorrhizal fungi in northern hardwood forests exposed to long term increased nitrogen inputs. Poster presentation and published abstract. Ecological Society of America Annual meeting, Memphis, Tennessee, August 6-11, 2006.

## TEACHING AND MENTORING EXPERIENCE

Guest lecture – Soil Fertility course at UW, lecture about mycorrhizal fungi, November 19, 2015.

Guest lecture – Soil Ecology course at University of New Hampshire, lecture and lab about mycorrhizal fungi, Fall 2011 and Spring 2014.

Attended Postdoctoral Short Course – College Teaching in Science and Engineering – Winter 2010

Teaching and Field Assistant – Forest Ecology (FW3020) Fall 2005

Guest speaker – National Advanced Silviculture Program, module Ecological Systems, practical on soil respiration using LICOR8100 – Spring 2007, 2008, 2009.

***Graduate students (co-advisor)***

Christopher Wenzel, Ph.D., Sept. 2015-present. Nitrate Reduction Potential of Soil Microbes in the North Platte River Valley Watershed, Wyoming. University of Wyoming, Department of Ecosystem Science and Management.

Bouzeriba Alsunuse Ph.D., Nov. 2015-present. Influence of Cover Crops on Arbuscular Mycorrhizal Fungal Communities in Soils of Agroecosystems in the Bighorn Basin. University of Wyoming, Department of Ecosystem Science and Management.

Erin Rooney, M.S., Nov. 2015-present, University of Wyoming, Department of Ecosystem Science and Management.

Gordon Custer, M.S., Sept. 2015-present. Rhizospheric composition of *Picea engelmanni* along an infestation gradient. University of Wyoming, Department of Plant Sciences.

Elizabeth Landis, M.S. Microbiology, Oct. 2013-Dec. 2015. Physiological changes in white-rot fungi in response to simulated nitrogen deposition are not readily reversed through experimental evolution, University of New Hampshire.

Mark Anthony, M.S. Natural Resources, Oct. 2013-Oct. 2015, Invasive plant (*Alliaria petiolata;* garlic mustard) homogenizes fungal community composition and increases fungal richness, University of New Hampshire.

***Undergraduates (co-advisor)***

Matt Voegtle, Oct. 2015-present, senior thesis, Whittier College, Whittier, CA

Lisa Graichen, National Science Foundation Research Experience for Undergraduates (REU) student, 2011, University of New Hampshire.

Meghan Thornton, REU student, 2013, University of New Hampshire.

## AWARDS

***Research Award:*** Forest Fungal Ecology Postdoctoral Research Award from the Mycological Society of America, 2014 **($2500**)

***Travel Award:*** FESIN (Fungal Environmental Sampling and Informatics Network) workshop 2011 **($1000)**

***Research Grant:*** Ecosystem Science Center (Michigan Technological University); 2005, 2006, 2007, 2008 **($750)**

***Travel Grant:*** Ecosystem Science Center (Michigan Technological University); 2006 & 2008 **($500)**

***Travel Grant:*** Graduate Student Council (Michigan Technological University); 2006 **($300)**

***Poster Award*****:** Ecosystem Science Center, Graduate Research Forum, 1st place poster; 2007 (**$500)**

## COMMITTEES AND SERVICE

***Committee member:*** University of Wyoming Stable Isotope Facility Steering committee. Nov. 2015-present.

***Guest Editor:*** Fungal Ecology, special issue August 2014; Fungi in a changing world: The role of fungi in ecosystem response to global change.

***Co-organizer:*** Symposium on "Fungi in a Changing World" at Mycological Society of America annual meeting in 2012.

***Reviewer:*** Functional Ecology, Frontiers in Microbiology, Molecular Ecology, Fungal Ecology, Global Change Biology, Microbial Ecology, Plant and Soil, Plant Ecology, American Journal of Botany, PLOS ONE.

***President*****:** Graduate Seminar Committee, School of Forest Resources and Environmental Science, Michigan Technological University. 2005 – 2008.

***Assistant*****:** Department of Biological Sciences Bio-Athlon, Michigan Tech University, 2008.

***Judging*****:** Western Upper Peninsula of Michigan Science Fair, Houghton, Michigan, 2008.

## PROFESSIONAL ORGANIZATIONS

Ecological Society of America, 2005 – present

Mycological Society of America, 2010 – present

Soil Ecology Society, 2005 – present