

# Alanna N Shaw

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## EDUCATION

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- Ph.D. Systems Ecology (anticipated May 2022)  
W.A. Franke College of Forestry and Conservation, University of Montana, MT
- B.S. Plant Biology, 2012  
Department of Environmental and Plant Biology, Ohio University, OH  
*Minor: Spanish*

## RESEARCH EXPERIENCE

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- 2016- Graduate Research Assistant, Terrestrial Ecosystem Ecology Laboratory  
W.A. Franke College of Forestry and Conservation, University of Montana
- 2012-2016 Research Assistant, MPG Ranch
- 2012 Research Specialist, The Holden Arboretum
- 2010-2012 Undergraduate Research Assistant, Soil Ecology Laboratory  
Department of Environmental and Plant Biology, Ohio University

## TEACHING & MENTORSHIP EXPERIENCE

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- Spring 2017, 2019, 2020 Teaching Assistant, FORS 201: Soils, Water, & Climate

## PUBLICATIONS

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8. **Shaw, AN**, JS Hall, M van Breugel & CC Cleveland. (*in prep*). Robbing the Phosphorus Vault: Can Tropical Rainforest Trees Access and Use “Unavailable” P?
7. Smemo, KA, SM Petersen, LA Kluber, **AN Shaw**, & JL DeForest. 2021. Temporal soil enzyme patterns provide new insights into the nutrient economy of acidic hardwood forests. *Biogeochemistry*.
6. **Shaw, AN** & CC Cleveland. 2020. The effects of temperature on soil phosphorus availability and phosphatase enzyme activities: a cross-ecosystem study from the tropics to the Arctic. *Biogeochemistry* 151:113-125.
5. Buchkowski, RW, **AN Shaw**, D Sihi, GR Smith, & AD Keiser. 2019. Constraining carbon and nutrient flows in soil with ecological stoichiometry. *Frontiers in Ecology & Evolution* 7(382).
4. Soper, FM, BW Sullivan, BB Osborne, **AN Shaw**, L Philippot, & CC Cleveland. 2019. Leaf-cutter ants engineer large nitrous oxide hot spots in tropical forests. *Proceedings of the Royal Society B: Biological Sciences* 286(1894).
3. **Shaw, AN** & DL Mummey. 2017. “*Poa secunda* Local Collections and Commercial Releases: A Genotypic Evaluation” *PLoS ONE* 12(4) e0173221
2. **Shaw, AN** & JL DeForest. 2013. “The cycling of readily available phosphorus in response to elevated phosphorus in acidic temperate deciduous forests.” *Applied Soil Ecology* 63:88-93
1. Kluber, LA, SR Carrino-Kyker, KP Coyle, JL DeForest, CR Hewins, **AN Shaw**, KA Smemo, & DJ Burke. 2012. “Mycorrhizal response to experimental pH and P manipulation in acidic hardwood forests.” *PLoS ONE* 7(11): e48946. doi:10.1371/journal.pone.0048946

## RESEARCH PRESENTATIONS

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### Invited Papers

"Into the phosphorus void: nutrient limitation and acidification of eastern deciduous forests." **AN Shaw**. 11/16/2012. MPG Ranch. Missoula, MT.

### Contributed Papers

- 2019 "Robbing the Phosphorus Vault: Can Tropical Rainforest Trees Access and Use "Unavailable" P?" **AN Shaw**, BL Turner, JS Hall, & CC Cleveland. The Soil Ecology Society Biennial Meeting 2019, Toledo, OH (poster)
- 2017 "The effects of temperature on net P mineralization: a cross-biome comparison." **AN Shaw** & CC Cleveland. 2017 Meeting of the Ecological Society of America, Portland, OR
- 2017 "WWNCD: What will nutrient cycles do (under climate change)." **AN Shaw** & CC Cleveland. 2017 University of Montana GradCon. Missoula, MT
- 2016 "Chronic nitrogen deposition may shift temperate forests from nitrogen to phosphorus economies." **AN Shaw** & JL DeForest. INTERFACE workshop: Phosphorus Cycling in Terrestrial Ecosystems, Townsend, TN (poster)
- 2015 "*Poa secunda* genetics: a comparison of local and commercial plant materials." **AN Shaw** & DL Mummey. 2015 National Native Seed Conference, Santa Fe, NM
- 2014 "Towards a genotypic characterization of the interspace species *Poa secunda*." **AN Shaw**, LM Shreading, & DL Mummey. MPG Conference, Missoula, MT
- 2012 "Is phosphorus limiting to unglaciated Ohio forests?" **AN Shaw**, N Romito, & JL DeForest. Ohio University Student Research and Creativity Expo and 2012 Ohio University Department of Environmental and Plant Biology Undergraduate Poster Session, Athens, OH (poster)
- 2011 "The cycling of readily available phosphorus in response to phosphate additions" **AN Shaw** & JL DeForest. Fall Meeting of the American Geophysical Union, San Francisco, CA (poster)
- 2011 "Quantifying labile phosphorus cycling in unglaciated eastern deciduous forests" **AN Shaw** & JL DeForest. Ohio University Student Research and Creativity Expo and 2011 Ohio University Department of Environmental and Plant Biology Undergraduate Poster Session, Athens, OH (poster)

## PROFESSIONAL DEVELOPMENT

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Spring 2021	INCyTE RCN Collaborative Seminar: "Nutrient Cycles in Earth System Models – Challenges, opportunities, and frontiers"
Summer 2019	WoodStoich 4
Fall 2017- present	Peer Editor, NPR SciComms Office Hours
Fall 2017	Massive Science: Climate Science Cohort
Fall 2017	ComSciCon Rocky Mountain West Workshop, Colorado University (Boulder, CO)
Spring 2017	Jump Start Thesis/Dissertation Writing Program, The Writing Center, University of Montana

## SERVICE

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Scientist Mentor, Missoula Insectarium "Girls and Bugs" after-school program, 2016-2018  
Judge, Montana Science Fair, 2017-2019  
Skype a Scientist, 2018-2021

## SCHOLARSHIPS AND AWARDS

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### Scholarships

2021-2022	Forestry Scholarship	\$2000
	W.A. Franke Scholarship Fund	\$5500
2020-2021	Forestry Scholarship	\$2000
	Lisa Ann Fisher Memorial Scholarship	\$1000
2019-2020	Bertha Morton Scholarship	\$3000
	John Richard Seiver Scholarship	\$2168
2018-2019	George E. Bright Memorial Fellowship	\$2000
2017-2018	Elenore H. Schofield & Donald J. Schofield Scholarship	\$1000
2012	The Thomas and Edna Wolfe Senior Scholarship	
2010-2011	The Charles E. Miller Scholarship	
	C. Paul and Beth K. Stocker Scholarship	
	M.T. Vermillion Scholarship	
2009-2012	Dean's Scholarship	
2008-2012	Gateway Scholarship	

### **Awards**

2017 ComSciCon Rocky Mountain West Travel Award  
2016 INTERFACE Travel Award  
2011 Ohio University Undergraduate Travel Award

### **PROFESSIONAL SOCIETIES**

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Ecological Society of America  
Earth Science Women's Network  
Graduate Women in Science (Missoula Chapter)  
Soil Ecology Society