

Michael E. Van Nuland, Ph.D.

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EDUCATION

- Ph.D. Ecology and Evolutionary Biology (2012–2017)
University of Tennessee, Advisor: Dr. Jennifer Schweitzer
- B.S. Biology (2007–2011)
Seattle University, *Cum Laude*, Advisor: Dr. Lindsay Whitlow

PROFESSIONAL APPOINTMENTS

Stanford University

Postdoctoral Scholar July 2017–Present
Faculty Mentor: Dr. Kabir Peay

University of Tennessee

NSF Graduate Research Fellow 2013–2016
Graduate Teaching Assistant 2012, 2017

PUBLICATIONS

In review

- J A Schweitzer, **M E Van Nuland**, & J K Bailey. Intraspecific positive, neutral, and negative feedbacks across gradients link ecology and evolutionary biology. (Book chapter).
- M E Van Nuland**, M Chen, & B J England. Bringing plants and soils to life through a simple role-playing activity.
- I M Ware, **M E Van Nuland**, J A Schweitzer, Z Yamin, C W Schadt, L C Sidak-Loftis, et al. Evolution due to climate warming alters the linkage between genes and ecosystems.

Accepted/Published

- A A Pfennigwerth, **M E Van Nuland**, J K Bailey, & J A Schweitzer (2017) Plant-soil feedbacks mediate shrub expansion in declining forests, but only in the right light. *Journal of Ecology*, DOI: 10.1111/1365-2745.12833.
- M E Van Nuland**, J K Bailey, & J A Schweitzer (2017) Divergent plant-soil feedbacks influence range dynamics and ecosystem processes across elevation. *Nature Ecology & Evolution*, 1, DOI:10.1038/s41559-017-0150.
- M E Van Nuland**, R C Wooliver, A A Pfennigwerth, Q D Read, I M Ware, L Mueller, J A Fordyce, J A Schweitzer, & J K Bailey (2016) Plant-soil feedbacks: connecting ecosystem ecology and evolution. *Functional Ecology*, 30, 1032-1042.
- M E Van Nuland** & W L Whitlow (2014) Temporal effects on biodiversity and composition of arthropod communities along an urban-rural gradient. *Urban Ecosystems*, 1-14.

M E Van Nuland, E N Haag, J A M Bryant, Q D Read, R N Klein, et al. (2013) Fire promotes pollinator visitation: Implications for ameliorating declines of pollinator services. *PLoS ONE*, e79853.

J K Bailey, M A Genung, I Ware, C E Gorman, **M E Van Nuland**, et al. (2013) Indirect genetic effects: An evolutionary mechanism linking feedbacks, genotypic diversity and coadaptation in a climate change context. *Functional Ecology*, 28, 87-95.

C E Gorman, Q D Read, **M E Van Nuland**, J A M Bryant, J N Welch, et al. (2013) Species identity influences belowground arthropod assemblages via functional traits. *Annals of Botany Plants*, DOI:10.1093/aobpla/plt049.

FUNDING & AWARDS

2017 Jim Tanner EEB Outstanding Dissertation Award, University of Tennessee
2017 Outstanding Graduate Research Award, University of Tennessee Graduate School
2016 BES Functional Ecology Haldane Award Nominee
2016 University of Tennessee EEB “Best Progress Towards Dissertation” (\$500)
2016 NSF Doctoral Dissertation Improvement Grant: “*Do plant genetic X soil microbiome X environment interactions determine plant and soil function across global change gradients?*” (\$19,630)
2015 Soil Ecology Society Conference Best Oral Presentation, honorable mention
2015 Soil Ecology Society Travel Award (\$500)
2015 Outstanding Graduate Research Award, University of Tennessee Graduate School
2014 University of Tennessee Graduate Student Senate Travel Award (\$850)
2014 University of Tennessee EEB Departmental Travel Award (\$1100)
2014 SSSA Francis & Evelyn Clark Soil Biology Scholarship (\$2000)
2013 Editors choice (Gorman *et al.* *Annals of Botany Plants*)
2013 Open Access Publishing Grant, University of Tennessee Library (\$810)
2013 Soil Ecology Section of the Ecological Society of America Travel Award (\$500)
2012-15 University of Tennessee EEB Chancellors Funds (total \$7500)
2012-17 NSF Graduate Research Fellowship “*Do soil communities mediate evolutionary consequences of plant-soil feedback?*” (total \$96,000)
2009-11 Seattle University Science & Engineering Bannan Scholar (total \$13,000)
2011 Seattle University Biology Award (1 awarded per graduating class)

PRESENTATIONS

Invited talks

M E Van Nuland, *et al.* SYMP 14: Landscape level eco-evolutionary dynamics of plant-soil feedbacks. The 100th Annual ESA Conference. Baltimore, MD, 2015.

M E Van Nuland *et al.* Fire promotes pollinator visitation: Implications for ameliorating declines of pollinator services. Great Smoky Mountains National Park Science Colloquium, 2014.

Published abstracts

M E Van Nuland, J K Bailey, and J A Schweitzer. Plant-soil feedbacks vary along elevation gradients and affect range shifts. Soil Ecology Society Conference, Colorado Springs, CO, 2015.

M E Van Nuland, I M Ware, J A Schweitzer, and J K Bailey. Plant-soil feedback drives landscape-level eco-evolutionary dynamics in a foundation tree species. British

- Ecological Society and Société Française d'Ecologie Joint Annual Meeting, Lille, FR, 2014.
- M E Van Nuland, J K Bailey, and J A Schweitzer. COS 100-7: Contemporary evolution drives landscape-level ecosystem change: Implications for feedbacks and range-shifts. The 98th Annual ESA Conference. Minneapolis, MN, 2013.
- M E Van Nuland *et al.* Contaminants and Collembollans. Murdock Trust Natural Science Seminar. Seattle, WA, 2009.
- M E Van Nuland PS 27-94: Investigation of Pacific Northwest forest litter invertebrate communities and resilience along an urbanization gradient. The 97th Annual ESA Conference. Portland, OR, 2012.
- M E Van Nuland *et al.* PS 64-161: Little bugs in the big city: Investigation of litter invertebrates along an urbanization gradient. The 95th Annual ESA Conference. Pittsburgh, PA, 2010.
- M E Van Nuland *et al.* Little bugs in the big city: Investigation of litter invertebrates along an urbanization gradient. The National Conference for Undergraduate Research. Missoula, MT, 2010.

TEACHING

Instructor

Writing Science (graduate seminar) Spring 2016

Teaching Assistant (Undergraduate positions)*

Plant Ecology	Spring 2013, Spring 2017
General Biology	Fall 2012
Ecology Lab*	Spring 2011
General Biology*	Fall 2011
Gen. Biol. Study Group Leader*	Spring 2008–2011

Guest Lectures and Teaching Coursework:

Plant-soil feedbacks	Ecosystems Ecology (Fall 2014)
Urban Ecology	Ecology (Spring 2014)
Belowground Interactions	Plant Ecology (Fall 2013)
Competition	Plant Ecology (Fall 2013)
Modern Curriculum Design	Dr. Beth Schussler (2013-2014)

SERVICE & OUTREACH

Referee for *Nature Ecology & Evolution*, *Ecology*, *Functional Ecology*, *Landscape Ecology*, *Oecologia*, *Ecological Monographs*, and *PLoS ONE*

Judge for Exhibition of Undergraduate Research and Creative Achievement event at UTK (2017)

BES Plant-Soil-Ecosystems Student Representative (2015–2016)

Undergraduate mentor for 12 students (lab, research, writing, and presenting skills)

Blog posts: BES Plant-Soils-Ecosystems journal club, The Culture Dish (MO BIO)

Darwin Day event promoter, University of Tennessee (2014)

Boo at the Zoo departmental outreach event, Knoxville Zoo (2012)

Seward Park Audubon Center research presentation for general public (2011)

Bailey Gatzert Elementary Science Fair activity leader (2008–2011)

Explore Alki Beach science mentor, Seattle public beaches (2009)

Darwin Day co-organizer and activity leader, Seattle University (2009)

PROFESSIONAL DEVELOPMENT & SKILLS

Teaching Soil Ecology workshop (Loren Byrne, 2015)
Professional Development course (Joe Bailey, 2015)
EDAMAME workshop (metagenomic analyses of microbial communities, 2014)
Structural Equation Modeling workshop (Jim Grace, 2014)
Trail Maintenance Specialist at Cougar Mountain Regional Wildland Park (2007)

PROFESSIONAL ASSOCIATIONS

British Ecological Society
BES Plant-Soil-Ecosystems
Ecological Society of America - Soil Ecology Section
Soil Ecology Society
National Association of Biology Teachers
ReadCube Ambassador