BONNIE MICHELLE McGILL

W. K. Kellogg Biological Station 3700 East Gull Lake Dr. Hickory Corners, MI 49060
Email: bonniemcgill@gmail.com
Website: www.msu.edu/~mcgillbo
15 April 2013

Education

2012- Ph.D. student in Zoology Department with a specialization in the Environmental Science and Policy Program. Advisor: Dr. Stephen K. Hamilton, W. K. Kellogg Biological Station.

2002-06 Washington & Jefferson College, Washington, PA. B.A. in Biology, May 2006; *Summa Cum Laude*; class rank 8 of 268; GPA 3.89; Biology GPA 3.89.

Honor societies, scholarships, and awards

National Science Foundation Graduate Research Fellow, 2013-2015
National Science Foundation Graduate Research Fellowship honorable mention, 2012
MSU Environmental Science and Policy Program Fellow, Aug 2012 – May 2013
Phi Beta Kappa, Kappa of Pennsylvania chapter, May 2006
Phi Sigma, Nu Chapter, Biology Honor Society, March 2005
Alpha Psi Omega, Lambda cast, Theater Honor Society, May 2004
Baccalaureate student speaker, Washington & Jefferson College, Class of 2006
Juror's Prize at the California University of Pennsylvania intercollegiate undergraduate art exhibit April, 2005
Sea Education Association Presidential Scholarship, fall 2005
Howard Hughes Medical Institute grant for research internship, spring 2004
Washington & Jefferson College Alpha Scholar, fall 2002 - spring 2006
Washington & Jefferson College Presidential Scholarship, fall 2002 – spring 2006

Publications and presentations

McGill, BM and JP Wright. (In review.) Go local: Neighborhood-scale plant trait variability within and between species responds to neighbor density and identity. *New Phytologist.*

Colman, BP, LA Arnaout, S. Anciaux, CK Gunsch, MF Hochella Jr., B. Kim, GV Lowry, BM **McGill**, BC Reinsch, CJ Richardson, JM Unrine, JP Wright, L Yin, and ES Bernhardt. 2013. Low concentrations of silver nanoparticles in biosolids cause adverse ecosystem responses under realistic field scenario. *PLoS ONE* 8(2): e57189. doi:10.1371/journal.pone.0057189.
http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0057189

Yin, L, BP Colman, BM **McGill**, JP Wright, and ES Bernhardt. 2012. Effects of silver nanoparticle exposure on germination and early growth of eleven wetland

plants. *PLoS ONE* 7(10): e47674. doi:10.1371/journal.pone.0047674. http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0047674

Wright, JP, and BM **McGill**. 2011. Effect of biotic neighborhood on traits is more constrained for leaf-level relative to plant-level traits. Oral Presentation. *Annual Meeting of the Ecological Society of America.*

Sutton-Grier, AE, JP Wright, BM **McGill**, and CJ Richardson. 2011. Environmental conditions influence the plant functional diversity effect on potential denitrification. *PLoS ONE* 6(2): e16584. doi:10.1371/journal.pone.0016584. http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0016584

McGill, BM, Sutton-Grier AE, Wright JP. 2010. Plant Trait Diversity Buffers Variability in Denitrification Potential over Changes in Season and Soil Conditions. *PLoS ONE* 5(7): e11618. doi:10.1371/journal.pone.0011618. http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0011618

Colman, BP, ES Bernhardt, CJ Richardson, CK Gunsch, C Aranout, BM **McGill**, JP Wright and L Yin. 2010. Nanomaterials in the environment: The effect of realistic silver nanoparticle exposures on terrestrial ecosystem dynamics. Oral Presentation. *Annual Meeting of the Ecological Society of America.*

Diehl, S. (undergraduate honors student mentee), JP Wright, and BM **McGill**. 2010. Determining the effect of an invasive grass, *Microstegium vimineum*, on soil communities and nitrogen cycling in riparian systems. Poster Presentation. *Annual Meeting of the Ecological Society of America.*

McGill, B.M., A.E. Sutton-Grier, and J.P. Wright. 2009. Functional diversity and denitrification**:** Evidence that greater plant biodiversity buffers variability in denitrification potential over changes in season and soil conditions. Oral Presentation. *Annual Meeting of the Ecological Society of America.*

Research experience

2007-12 Lab manager, Wright Lab, Duke University, Durham, NC. *Research in Dr. Justin Wright's community ecology lab focuses on the causes and consequences of changes in biodiversity with a primary focus on plant communities. While there, I wrote journal articles, presented research at professional meetings, independently carried out a wealth of field and lab experiments and analyses (biogeochemistry, microbial ecology, plant traits, plant community composition surveys), mentored undergraduate student research, managed lab assistants, assisted PI and graduate students.*

2006-07 Plant ecology research assistant, Commonwealth of Dominica, West Indies for Clemson University, Clemson, SC. *Tropical plant ecology and invasive plant ecology and genetics.* PI: Dr. Saara DeWalt.

2005 National Science Foundation Research Experience for Undergraduates, Flathead Lake Biological Station, University of Montana, Polson, MT. *Investigated the nutrient limitation of algae in a floodplain of the Middle Fork of the Flathead River, comparing between upwelling and downwelling sites. Gross primary production and chlorophyll a concentrations indicated that downwelling sites were N and P co-limited while upwelling sites were not nutrient limited.* Advisors: Dr. Emily Bernhardt (Duke U.), Dr. Ric Hauer (U. of Montana) and Dr. Brian Reid (now at the Center for Ecosystem Studies in Patagonian Chile, CIEP).

2004 Summer research assistant at Omar Torrejos National Park & Fortuna Forest Reserve Panama. *Ecosystem-level effects of tadpoles on tropical mountain streams – part of a large study tracking the changes in tropical stream ecosystem structure and function in response to amphibian extinctions.*

Teaching Experience

Teaching Assistant, Field Ecology & Evolution (ZOL440) – Summer 2013 at KBS
Teaching Assistant, Ecology (ZOL355) – Fall 2012, Spring 2013 at MSU
Teaching Assistant, Botany Lab – Fall 2004 at Washington & Jefferson College
Teaching Assistant, Biology – Fall 2004, Spring 2005 at Washington & Jefferson College

Peer Reviewer

Geobiology
Science of the Total Environment
Proposal reviewer for National Fellowships Committee for *Sigma Delta Epsilon*, Graduate Women in Science
Poster judge at the 2013 MSU University Undergraduate Research and Arts Forum

Scientific Illustrations

Burge et al. (2013) Phylogeny of the plant genus *Pachypodium* (Apocynaceae). *PeerJ* 1:e70 http://dx.doi.org/10.7717/peerj.70

Professional Societies

Ecological Society of America
Society for Freshwater Science

Community Involvement

Science blog *AGua Blogua* : http://aguablogua.wordpress.com, Nov 2012 – present

MSU Graduate Women in Science: mentor, Girls' Math & Science Day volunteer; 2012 – present
Fenner Nature Center, Lansing, MI: 2013 Maple Syrup Festival volunteer
Eno River Association, Durham, NC, 2008 – 2012
Durham Literacy Center, Durham, NC, 2008 - 2010
The Jordan Child & Family Enrichment Center, Raleigh, NC, spring 2009
Women in Math and Science, Durham, NC, spring 2008