

Curriculum vitae

Wendy M. Mahaney

EDUCATION

- 2007 Ph.D. in Plant Biology and Ecology Evolutionary Biology & Behavior Program, Michigan State University, East Lansing, MI
- 2001 M.S. in Ecology, Penn State University, University Park, PA
- 1999 B.S. in Natural Resources, Cornell University, Ithaca, NY

PROFESSIONAL EXPERIENCE

- 2008-present Postdoctoral Scholar, Case Western Reserve University and The Holden Arboretum
- 2007-2008 Visiting Scientist, The Holden Arboretum, Kirtland, OH
- 2006 Graduate Research Assistant, W.K. Kellogg Biological Station, Michigan State University, Hickory Corners, MI
- 2004-2006 Teaching Assistant, Michigan State University: Introduction to Biology Lab, Introductory Ecology, and Biology of Mammals
- 2001-2003 Research Assistant, Penn State Cooperative Wetlands Center, Penn State University, University Park, PA
- 1999-2001 Graduate Research Assistant, Penn State Cooperative Wetlands Center, Penn State University, University Park, PA
- 1998-1999 Wetlands/Biogeochemistry Research Assistant, Department of Natural Resources, Cornell University, Ithaca, NY

PUBLICATIONS

- Mahaney, W.M.** *In press*. Plant controls on decomposition rates: the benefits of restoring abandoned agricultural lands with native prairie grasses. *Plant and Soil*.
- Mahaney, W.M.**, K.A. Smemo, and K.L. Gross. 2008. Impacts of C4 grass introductions on soil carbon and nitrogen cycling in C3-dominated successional systems. *Oecologia* 157: 295-305.
- Mahaney, W.M.** 2007. Soil processes and plant species: Does the re-introduction of native grasses alter soil carbon and nitrogen cycling? *PhD Dissertation*. Michigan State University, East Lansing, MI.
- Mahaney, W.M.**, K.A. Smemo, and J.B. Yavitt. 2006. Impacts of *Lythrum salicaria* invasion on plant community and soil properties in two wetlands in Central New York, USA. *Canadian Journal of Botany* 84: 477-484.
- Miller, S.J., D.H. Wardrop, **W.M. Mahaney** and R.P. Brooks. 2006. A plant-based index of biological integrity (IBI) for headwater wetlands in central Pennsylvania. *Ecological Indicators* 6(2): 290-312.
- Mahaney, W.M.**, D.H. Wardrop, and R.P. Brooks. 2004. Impacts of stressors on the emergence and growth of wetland plant species in Pennsylvania, USA. *Wetlands* 24: 538-549.
- Mahaney, W.M.**, D.H. Wardrop, and R.P. Brooks. 2004. Impacts of sedimentation and nitrogen enrichment on wetland plant community development. *Plant Ecology* 175: 227-243.
- Mahaney, W.M.** 2001. Impacts of human-mediated stressors on wetland plant community development. *M.S. Thesis*. The Pennsylvania State University, University Park, PA.

PUBLICATIONS *in review and in preparation*

Ball, B.S., J.S. Kominoski, H.E. Adams, S.E. Jones, E.S. Kane, T.D. Loecke, **W.M. Mahaney**, J. Martina, C.M. Prather, T.M.P. Robinson, and C.T. Solomon. *In Review*. Putting the pieces together: global environmental changes and terrestrial-aquatic linkages. *BioScience*.

Mahaney, W.M. and K.L. Gross. Short-term impacts of C4 prairie grass restoration on soil carbon and nitrogen into old-fields. To be submitted to *Ecosystems*.

INVITED SEMINARS

Community organizing: how disturbance shapes plant community structure and function. Case Western Reserve University, Cleveland, OH. January 20, 2009.

Plant species and soil processes: Does the reintroduction of native prairie grasses alter soil carbon and nitrogen cycling in successional ecosystems. University of Maryland Center for Environmental Science, Frostburg, MD. May 29, 2008.

Soil processes and plant species: Does the reintroduction of native grasses alter soil carbon and nitrogen cycling in successional ecosystems. Case Western Reserve University. Cleveland OH. February 18, 2008.

CONTRIBUTED PAPERS AND POSTERS

Mahaney, W.M., K.A. Smemo, and D.J. Burke. Do plant species influence soil microbial community responses to litter inputs of different quality? Poster presented at the Ecological Society of America annual meeting. Milwaukee, WI. August 3-8, 2008.

Mahaney, W.M., K.A. Smemo, and K.L. Gross. Decadal scale impacts of C4 grass reintroductions on soil carbon and nitrogen cycling in successional ecosystems. Paper presented at the Natural Areas Conference. Cleveland, OH. October 9-12, 2007.

Mahaney, W.M., K.A. Smemo, and K.L. Gross. Decadal scale impacts of C4 grass reintroductions on soil carbon and nitrogen cycling in successional ecosystems. Paper presented at the Ecological Society of America annual meeting. San Jose, CA. August 5-10, 2007.

Mahaney, W.M., K.A. Smemo, and K.L. Gross. How can shifts in species composition influence ecosystem processes: a case study using C3 and C4 grasses. Poster presented at the LTER All Scientist Meeting. Estes Park, CO. September 20-24, 2006.

Mahaney, W.M. and K.L. Gross. How can shifts in species composition influence ecosystem processes: a case study using C3 and C4 grasses. Poster presented at the Ecological Society of America annual meeting. Memphis, TN. August 6-12, 2006.

Mahaney, W.M., K.A. Smemo, and J.B. Yavitt. Spatial and temporal dynamics of *Lythrum salicaria* invasion in a peat-forming sedge fen. Poster presented at the Ecological Society of America annual meeting. Portland, OR. August 1-7, 2004.

Mahaney, W.M., D.H. Wardrop, S.J. Miller. Gradients of landscape disturbance and their relationship to wetland plant communities in Pennsylvania. Paper presented at the Society of Wetland Scientists annual meeting. New Orleans, LA. June 8-13, 2003.

Mahaney, W.M., D.H. Wardrop, and R.P. Brooks. Controls on wetland plant community composition and the implications for ecosystem function. Poster presented at the Society of Wetland Scientists annual meeting. Lake Placid, NY. June 2-7, 2002.

Mahaney, W.M., D.H. Wardrop, and R.P. Brooks. Impacts of human-mediated stressors on wetland plant community development. Poster presented at the Ecological Society of America annual meeting. Madison, WI. August 5-10, 2001.

Mahaney, W.M., D.H. Wardrop, and R.P. Brooks. Development of plant guilds using functional rationales for plant responses to environmental stresses. Paper presented at the Society of Wetland Scientists annual meeting. Chicago, IL. May 27-June 1, 2001.

Mahaney, W.M., K.A. Smemo, M. Welsch and J.B. Yavitt. Plant biomass and nutrient response to Purple Loosestrife invasion in two wetlands in Central New York State. Poster presented at the Ecological Society of America annual meeting. Spokane, WA. August 8-12, 1999.

Mahaney, W.M. and A.N. Moen. Predicting deer damage to apple trees. Poster presented at the Wildlife Society Annual Meeting. Buffalo, NY. September 24, 1998.

GRANT SUPPORT (*pending*)

Mahaney, W.M. September 2009. Conserving herbaceous understory species in human-influenced forests: The importance of soils. David H. Smith Conservation Research Fellowship Program.

Smemo, K.A., D.J. Burke, and **W.M. Mahaney**. July 2009. Altered Winter Precipitation Patterns and Forest Ecosystem Function in the Great Lakes Region. National Science Foundation's Division of Environmental Biology Ecosystem Science Cluster.

GRADUATE RESEARCH GRANTS AND AWARDS

- 2007 Long-Term Ecological Research (LTER) Network Cross-site Synthesis Grant (\$7500)
Kominoski, J., Mahaney, W., Adams, H., Ball, B., Burgin, A., Crenshaw, C., Dalglish, H., Guo, H., Jones, S., Kane, E., Kuhman, T., Loecke, T., Prather, C., Robinson, T., Sobota, D., and Solomon, C. 2006. The influence of changes in terrestrial plant community structure on aquatic ecosystem function across the LTER network. Meeting held at KBS April 19-22, 2007.
- 2006-2007 T. Wayne and Kathryn Porter Research Scholarships (\$2000)
- 2005-2007 MSU LTER graduate student research grants (\$3000)
- 2005-2007 George H. Lauff Research Awards (\$1500)
- 2005-2006 Marvin Hensley Endowed Fellowship (\$5000)
- 2004-2007 MSU Graduate School and Plant Biology Travel Grants (\$2900)

GRADUATE FELLOWSHIPS AND HONORS

- 2007 MSU College of Natural Science Dissertation Completion Fellowship (\$6000)
- 2007 MSU Ecology Evolutionary Biology & Behavior Summer Fellowship (\$1700)
- 2004-2005 MSU Plant Sciences Recruiting Fellowship (\$23,000)
- 2003-2004 MSU College of Natural Science Recruiting Fellowship (\$40,000)
- 2000-2001 PSU Katherine Mabis McKenna Fellowship (\$3000)
- 2000 PSU 2nd Place, College of Agricultural Sciences-Gamma Sigma Delta Undergraduate and Graduate Research Exhibition

RECENT OUTREACH AND SERVICE

- 2009 Author of: What is nature worth? 2009. *Leaves* (a publication of The Holden Arboretum) 7(3).
- 2009 Co-taught modules for The Holden Arboretum's Mastin Teacher's workshop on soils, a workshop focused on teachers of 6-12 grade students
- 2008-2009 Hosted several open house events at The Holden Arboretum where I presented my research and basic ecological concepts to the general public
- 2008-2009 Strategic planning at The Holden Arboretum

- 2005-2006 MSU: KBS seminar committee member and organizer of student research seminars
- 2005-2006 MSU: Student representative to the Kellogg Biological Station (KBS) Academic Personnel Council
- 2005-2006 MSU: Student representative, KBS Plant Ecologist faculty search committee
- 2004-2005 MSU: Member, Seminar Committee, Graduate Program in Ecology, Evolutionary Biology & Behavior
- 2003-2004 MSU: Student representative, Plant Biology (PLB) Faculty Meetings
- 2003-2004 MSU: Student representative, PLB Department Advisory Committee

PROFESSIONAL SOCIETY MEMBERSHIP

Society of Wetland Scientists (1999-2008)

Ecological Society of America (1999-present)