

Matthew P. Weand

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EDUCATION

Ph.D. Soil Science, University of Kentucky, Lexington, KY. Expected 2009

M.S. Environmental Studies, Ohio University. Athens, OH. 2001

B.S. Computer Engineering, Tufts University. Medford, MA. 1997

RESEARCH EXPERIENCE

Hardwood Forest Response to Beech Bark Disease (6/05-present) Investigating effects of an exotic pathogen complex on forest community dynamics. Focus on canopy leaf area dynamics, soil nitrification, and stand composition.

Hardwood Forest Response to Increased Nitrogen Deposition (6/05-present) Continued N fertilizer application to assess potential for saturation in northern hardwoods.

Exotic and Native Grass Response To Nutrient Additions (11/03-7/04) Assisted in collection of soils across precipitation gradients and recorded response of grass species to N and P additions in greenhouse settings. Prepared soil and tissue samples for cellulose, hemi-cellulose lignin and C:N analyses.

Capability of Methanotrophs to Remediate Trichloroethylene Contamination (5/04-8/04) Cultured methanotrophic bacteria in biofilm reactors and assayed soluble mono-oxygenase enzyme activity.

U.S.D.A. Forest Service Fire and Fire Surrogate Project: Seedling and Forb Component (6/01-9/01) Assessed composition of herb layer following prescribed burning and thinning treatments for oak regeneration in mixed-mesophytic Ohio forests. Included rare plant monitoring and assessments of canopy openness.

Edge and Interior Vegetation in Highly Fragmented Forests: Master's Thesis (9/00-11/01) Surveyed the structure and composition of forest fragments adjacent to reclaimed surface mines, included assessments of soil C:N and canopy cover.

GRANTS AND ACADEMIC AWARDS

- **Daniel R. Ready Academic Excellence Scholarship** 2005-present
- **University of Kentucky, Department of Forestry** 2005-present Research Assistantship
- **National Science Foundation CREST-RESSACA Research Experience For Teachers** Summer 2004 Texas A&M-Kingsville.
- **Ohio University E.R.H./Phi Delta Graduates Scholarship** Spring 2001
- **Ohio University John Houk Memorial Research Grant** Fall 1999, 2000
- **Ohio Biological Survey Small Grant Award** Fall 2000

- **Ohio University Environmental Studies Program** 1999-2001 Teaching Assistantship

TEACHING EXPERIENCE

Biology Instructor, Natural Sciences Division, Blinn College, Bryan TX (8/04 – 6/05)
Instructed undergraduate students in introductory biology. Delivered classroom lectures, conducted laboratory exercises and assessments of students learning. Maintained online course content.

Secondary School Biology Teacher, Academy High School, Santa Gertrudis ISD, Kingsville TX (6/02-7/04) Taught biology, environmental studies, and advance placement biology to high school students. Designed course curricula, managed and conducted biology labs, lectures, and assessments. Coached university interscholastic academic teams. Served on attendance and gifted and talented committees.

Teaching Assistant, Department of Environmental and Plant Biology, Ohio University, Athens OH (9/99-11/01) Provided instruction to undergraduate biology students in introductory plant biology, and tree and shrub taxonomy. Assessed students and led laboratory exercises. Prepared lab materials and maintained equipment.

GRADUATE COURSEWORK

Plant-Soil Relationships, Soil Science, Geographic Information Systems, Resource Management, Quantitative Methods, Plant Ecology, Plant Systematics, Environmental Law, Cell Biology, Seminars in environmental studies and biogeography.

PUBLICATIONS AND PRESENTATIONS

- Weand, Matthew P. and Lee P. Clapp, 2004. Characterization of copper loading effect on sMMO expression in membrane-attached methanotrophic biofilms. National Science Foundation CREST-RESSACA Committee Report, Texas A&M – Kingsville.
- Weand, Matt and Brian C. McCarthy, 2001. Interior vs. edge vegetation in a fragmented forest landscape. Ohio Journal of Science 101:(1) 44. Abstract.

PROFESSIONAL SERVICE

- Forestry Graduate Student Association (9/05-present) Co-founder and member.
- Midwest Ecology and Evolution Conference Planning Committee (9/99-4/00) Member

PUBLIC SERVICE

- Judging for 3rd Annual Central Kentucky Regional Science and Engineering Fair March 4 2006