

## **Kurt M. Hartman**

Missouri Western State University  
Biology Department  
(816) 271-4382  
Email: khartman3@missouriwestern.edu

### **Education**

Ph D, Ohio University, 2005.

Major: Environmental and Plant Biology

Supporting Areas of Emphasis: Environmental Restoration

Dissertation Title: The impacts, invasibility, and restoration ecology of an invasive shrub, Amur honeysuckle (*Lonicera maackii*)

BS, Bowling Green State University, 1993.

Major: (1) Biological Science, (2) Environmental Science

Supporting Areas of Emphasis: Plant Biology & Environmental Restoration

### **Professional Positions**

#### **Academic**

Assistant Professor of Biology, St. Andrews Presbyterian College. (August 2006 – May 2008).

Assistant Professor of Biology, Missouri Western State University. (August 2008 - Present).

### **Licensures and Certifications**

Intro to Global Positioning Systems for Mapping and Navigation, Missouri Western State University - Western Institute. (August 8, 2008 - Present).

### **Professional Memberships**

Member - Midwest Great Lakes Chapter, Society for Ecological Restoration. (October 10, 2005 - Present).

Member - Vegetative & Statistical Ecology Sections, Ecological Society of America. (September 1, 1999 - Present).

Member, Natural Areas Association. (September 1, 1999 - Present).

## **TEACHING**

### **Teaching Experience**

#### **Missouri Western State University**

BIO 101, Principles Of Biology, 4 courses.

BIO 105, 1 course.

BIO 115, Ecology And Evolution, 6 courses.

BIO 305, Human Ecology, 1 course.

### **Directed Student Learning**

Directed Individual/Independent Study, "Genetic analysis of *Symphytotricum depauperatum* (Asteraceae) samples from a southern Missouri glade." (January 20, 2009 - May 5, 2009).

## Directed Student Learning (CONT.)

Directed Individual/Independent Study, "Investigating public streams to study ecology of coarse woody debris and geomorphology." (November 13, 2008 - Present).

Directed Individual/Independent Study, "Investigation of biodiversity on ecosystem function and stability." (December 5, 2008 - May 5, 2009).

Directed Individual/Independent Study, "Investigation of Habitat Suitability for the Western Fringed Prairie Orchid." (December 3, 2008 - May 5, 2009).

Directed Individual/Independent Study, "Investigation of Technological and Social Constructs to Generate Long-term Human Sustainability and Community Viability." (December 1, 2008 - May 5, 2009).

## RESEARCH

### Published Intellectual Contributions

#### Refereed Journal Articles

Hartman, K. (2008). Changes in forest structure and species composition following invasion by a non-indigenous shrub, Amur honeysuckle (*Lonicera maackii*). *Journal of the Torrey Botanical Society*, 135(2), 245-259.  
<http://academic.missouriwestern.edu/khartman3/Hartman%20&%20McCarthy%202008%20JTBS.pdf>

### Presentations Given

Hartman, K. (Presenter & Author), Missouri Academy of Science, Annual Meeting, "Soil Comparison Between Prairies Containing the White Fringe Prairie Orchid and Potential Prairies," Missouri Academy of Science, Maryville, Missouri. (April 25, 2009).

Hartman, K. (Presenter & Author), Missouri Academy of Science, Annual Meeting, "The Influence of Perch Types on the Movement of Bird-Dispersed Seeds to Facilitate Old-Field Succession," Missouri Academy of Science, Maryville, Missouri. (April 25, 2009).

Rushin, J. (Presenter & Author), Chevalier, C., Daggett, M. (Presenter Only), Hartman, K., Ashley, D., Baker, J., Walton, K., Applied Learning in Higher Education, "Assessing Applied Learning Skills in a First Year College General Biology for Non-Majors Laboratory Setting: The Effects of Two-Week Long Learning Cycle Blocks (LCBs) on the Development of Science Process Skills," Missouri Western State University, St. Joseph, MO. (February 20, 2009).

Hartman, K. (Presenter & Author), Invasive Species Workshop, "Amur honeysuckle: impacts on forest communities & environmental restoration," Missouri Department of Conservation, St. Joseph, Missouri. (December 15, 2008).

## Contracts, Grants and Sponsored Research

### Grants

Hartman, Kurt (Principal), "Vegetation, seed bank, and environmental changes along a topographical gradient in a loess hill prairie ecosystem," Sponsored by SRI - Missouri Western State University, Missouri Western State University, \$5,500.00. (June 12, 2009 - July 23, 2009).

Hartman, Kurt (Co-Principal), Chevalier, Cary (Co-Principal), Ashley, David (Principal), "Survey of populations and habitat potential for western fringed orchid, *Platanthera placlera*," Sponsored by Richard L. Rice & Crosby Guenzel, LLP, Private, \$1,183.00. (July 22, 2008).

### Awards and Honors

"Chief Editors Award" for publication in Applied Vegetation Science, Applied Vegetation Science. (December 28, 2008).

### Research in Progress

"Book Chapter: Writing in the Sciences" (On-Going)

Work on integrating writing, collaboration, and online technology to facilitate feedback into providing quality and fulfilling, and empowering scientific writing experiences.

"Investigating the population genetics, breeding structure, and morphology of a locally rare plant, *Symphytichum* sp. on moist, glade habitats" (On-Going)

We are looking at using genetic and morphological techniques to ascertain the taxonomic identity of a locally isolated plant population in southern Missouri. We are using both genetic and ecological techniques to tease apart the fundamentals of this species' biology.

"Predicting growth and biomass allocation for seedlings of an invasive shrub species, Amur honeysuckle" (On-Going)

Experiment designed to address invasive plant response to heterogeneous habitats for predicting species performance, population growth, and invasion potential.

"Relationship between soil type and vegetative ecosystem in the Loess Hills of northwest Missouri" (On-Going)

In order to properly restore forest and prairie ecosystems on disturbed or developed land in northwest Missouri, we need to know what type of ecosystem was originally located at each site. The purpose of this study is to determine if and how much of an effect the natural distribution of plant communities has had on soil development and characteristics. If true, then describing and identifying the soils would give us a way to identify which type of ecosystem should be restored at any particular location.

"Vegetation, seed bank, and environmental changes among aspects and along elevational gradients in a loess hill prairie ecosystem" (On-Going)

The goal of this study will be to characterize the distribution of prairie plants along an elevation gradient and identify possible in-situ environmental characteristics associated with species distributions at Squaw Creek National Wildlife Refuge (SCNWR). This will aid in understanding the habitat requirements of loess hill prairie species and baseline reference criteria for similar prairies being restored.

## **SERVICE**

### **Department Service**

Faculty Mentor, MWSU Wildlife Society. (August 28, 2008 - Present).

Committee Member, Wildlife Conservation Steering Committee. (August 18, 2008 - Present).

Faculty Advisor, Caving Workshop - Ozark Underground Lab. (October 31, 2008 - November 2, 2008).

Faculty Advisor, BBB - Highway Cleanup. (October 25, 2008).

Faculty Advisor, Reis Biological Station Field Trip. (September 19, 2008 - September 21, 2008).

### **College Service**

Committee Member, Phasing Committee. (November 12, 2008 - Present).

Committee Chair, Moving Committee - Agenstein-Remington Hall. (October 6, 2008 - Present).

### **University Service**

Faculty Advisor, Speakers Series- Tri-Beta Biological Honors Society. (January 5, 2009 - May 9, 2009).

Faculty Advisor, Speakers Series- Tri-Beta Biological Honors Society. (October 15, 2008 - December 3, 2008).

### **Professional Service**

Biology Section Chair, Missouri Academy of Science, Missouri. (April 25, 2009 - Present).

Website Editor, Invasive Species Specialist Group: International Union for Conservation of Nature, University of Auckland, Auckland. (November 10, 2008 - December 30, 2008).

Invited Lecture, Invasive Species Conference, St. Joseph, Missouri. (December 15, 2008).

Editor, Journal Editor, Journal of the Torrey Botanical Society, Lawrence, Kansas. (August 28, 2008 - September 17, 2008).

### **Public Service**

Vegetable Garden Creation with MWSU Psi Chi Psych Honors Society, Noyes Home for Children, St. Joseph, Missouri. (April 22, 2009).

Speaker on ethnobotanical use of local plants, Women in the Outdoors, St. Joseph, Missouri. (March 28, 2009).

Event Judge, Missouri Junior Academy of Science, St. Joseph, Missouri. (March 6, 2009).

Presenter at Super Science Saturday, St. Joseph Museums, St. Joseph, Missouri. (January 31, 2009).

## **Public Service (CONT)**

Workshop Organizer, Holiday Gifts for YWCA Women & Children, St. Joseph, Missouri.  
(November 15, 2008 - December 5, 2008).

Guest Speaker, Boy Scouts, St. Joseph, Missouri. (November 25, 2008).

Guest Speaker, Boy Scouts, St. Joseph, Missouri. (November 25, 2008).

Prince Charming at the Cinderella/Girl Scout Ball, St. Joseph Girl Scouts, St. Joseph, Missouri.  
(November 15, 2008).

Driver of convertible parade car supporting MWSU Griffons, Homecoming 2008 - MWSU -  
Parade, St. Joseph, Missouri. (October 18, 2008).