

## MELISSA E. BRIDGES

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### **Education:**

**Ph.D. Ecology and Environmental Sciences** August 2012  
Montana State University, <http://weedeco.msu.montana.edu/>  
**M.S. Soil and Crop Sciences** Spring 2007  
**Graduate Certificate** in Geospatial Sciences Spring 2007  
Colorado State University, 4.0 GPA  
**B.S. Natural Resources Management** Spring 2002  
University of Kentucky, Summa Cum Laude, 3.9 GPA

### **Research and Relevant Work Experience:**

#### **Research Fellow** April 2012—Present

School of Life Sciences, University of Warwick Coventry, United Kingdom

- Development of predictive models for the evolution of herbicide resistance in weed populations of arable land

#### **Graduate Research/Teaching Assistant** Jan 2009—April 2012

Dept. of Land Resources and Environmental Sciences, Montana State University Bozeman, Montana

- Conducted research related to modeling the spatial distribution and characterizing the population dynamics of various non-indigenous plant species in agroecosystems
- Teaching assistant
  - LRES 470: Capstone Research Project
  - LRES 443: Weed Ecology and Management

#### **Graduate Research Assistant** May 2007—Jan 2009

Dept. of Bioagricultural Sciences, Colorado State University Fort Collins, Colorado

- Conducted research pertaining to the sampling and spatial modeling of invasive weeds and the physiological effects on various Colorado wheat varieties and annual grass weeds to imidazolinone herbicides

#### **Graduate Research Assistant** August 2005—May 2007

Dept. of Soil and Crop Sciences, Colorado State University Fort Collins, Colorado

- Conducted research on site-specific management zones for productivity and herbicide management
- Teaching assistant: SC 177: Information Technology in Agriculture

### **Geographic Information Systems Technician**

Georgetown—Scott County Planning Commission, Georgetown, Kentucky Sept. 2004—June 2005

Dept. of Plant and Soil Sciences, University of Kentucky Lexington, Kentucky Sept. 2002—June 2003

### **Professional Development (Selected Presentations and Publications):**

Bridges, M., B.D. Maxwell, and L.J. Rew. 2010. The role of current and historic land use on invasive species habitat suitability. *Weed Science Society of America Annual Meeting*. Feb. 7-11. Denver, CO. [Oral presentation].

Bridges, M., D.L. Shaner, and P. Westra. 2009. The effects of imazamox on feral rye at different physiological stages. *62<sup>nd</sup> Western Society of Weed Science Annual Meeting*. March 10-12. Albuquerque, NM. [Oral presentation].

Bridges, M., B.D. Maxwell, J. Rotella, and L.J. Rew. 2009. Evaluating the relationship between invasive plant metapopulation growth rate and management efficacy using a modified incidence function model. *Ecological Society of America Annual Meeting*. Aug. 2-7. Albuquerque, NM. [Poster presentation].

Bridges, M. D. Wolford, K. Wicklund, and P. Westra. 2008. A precision conservation approach for the efficient

management of a woody invasive riparian weed: a case study. *5<sup>th</sup> International Weed Science Congress*. June 23-27. Vancouver, BC. [Poster presentation].

Bridges, M., W.B. Henry, D.L. Shaner, R. Khosla, P. Westra, and R. Reich. 2008. Spatial variability of atrazine and metolachlor dissipation on dryland no-tillage crop fields in Colorado. *J. Environ. Qual.* 37:2202-2211.

Bridges, M. P. Westra, S.A. Dewey, K.A. Andersen. 2008. Generating probability of invasive weed occurrence maps for aid in precision conservation. *Proceedings of the 9<sup>th</sup> International Conference on Precision Agriculture*. July 20-23, 2008. Denver, CO.

Bridges, M., T.J. Stohlgren, P.H. Evangelista, S. Kumar, P. Westra, and R.M. Reich. 2008. Probability of occurrence maps for invasive weeds using only weed presence locations. *61<sup>st</sup> Western Society of Weed Science Annual Meeting*. March 11-14. Anaheim, CA. [Oral presentation].

Bridges, M, W.B. Henry, R. Khosla, D.L. Shaner, P. Westra, and R. Reich. 2007. Spatial variability of atrazine and metolachlor dissipation in dryland no-tillage crop fields in Colorado. *American Society of Agronomy Annual Meetings*. Nov. 4-8. New Orleans, LA. [Oral presentation].

Bridges, M. R. Khosla, D.L. Shaner, W.B. Henry, P. Westra, and R. Reich. 2006. Productivity level management zones on dryland no-tillage crop fields. *American Society of Agronomy Annual Meetings*. Nov. 12-16. [Poster presentation].

#### **Professional Memberships and Leadership:**

- Montana State Univ. Land Resources and Environmental Sciences Graduate Student Organization, co-founder and officer, 2009-2010
- Volunteer, Society for Range Management and Weed Science Society of America 2010 Annual Meeting
- Herbicide Resistant Plants Committee Member, Western Society of Weed Science 2010-Present
- Ecological Society of America Student Member, 2009 – Present
- Western Society of Weed Science Student Liaison Chair, 2008—2009
- Western Society of Weed Science, Student Member 2008—Present
- Colorado State Univ. Dept. of Bioagricultural Sciences Student Liaison Committee Member, 2007-2008
- American Society of Agronomy (ASA), Student Member 2003—2009
- Tamarisk Coalition, Member 2007—2009
- Association of Women Soil Scientists (AWSS), Student Member 2006—2007
- Gamma Sigma Delta, Honor Society of Agriculture, Member 2001 and 2006—2008
- Kentucky Association of Mapping Professionals (KAMP), Member 2004/2005
- Volunteer, Remote Sensing Workshops for the Kentucky Division of Geographic Information 2005
- Scott County, Kentucky Trails Committee Member 2004—2005

#### **Recent Awards/Accomplishments (Graduate School):**

- 2<sup>nd</sup> Place Graduate Student Paper Competition, 62<sup>nd</sup> Annual Western Society of Weed Science, 2009
- R. Ralph Baker Graduate Student Award for Research Excellence, Dept. of Bioagricultural Science and Pest Management, Colorado State Univ., 2008
- Bridges, M., P. Westra (PI), and T.J. Stohlgren (Co-PI). 2008. Research Proposal: Characterization of *Centaurea diffusa* populations in Boulder County, Colorado. Funded in May 2008 --\$13,000 (1 year)
- 9<sup>th</sup> International Conference on Precision Agriculture Graduate Student Award. July 2008. Denver, CO
- Bert Bohmont Graduate Student Award for Excellence in Extension Education, Dept. Bioag. Sciences, Colorado State Univ., 2007
- Hunter S. Follett Graduate Student Award, Dept. of Soil and Crop Sciences, Colorado State Univ., 2006
- ESRI International Conference Student Assistantship, 2006
- Graduate Recruitment Fellowship, Colorado State University, 2005