

# Kristopher Donald Barnswell

## Curriculum Vitae

Research Assistant Professor

September 2015

Department of Environmental Sciences  
University of Toledo - Lake Erie Center  
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## EDUCATION

- Ph.D. 2010 University of Toledo, Department of Environmental Sciences (Biology, Ecology-track)  
Dissertation: "Determining preliminary components for a landfill evapotranspiration cover" 108p.
- M.Sc. 2005 University of Toledo, Department of Environmental Sciences (Biology, Ecology- track)  
Thesis: "Phytoremediation potential at an inactive landfill in northwest Ohio" 86p.
- B.Sc. 2003 University of Toledo, Department of Environmental Sciences (Environmental Science)

## EMPLOYMENT

- 2015-present Research Assistant Professor, Department of Environmental Sciences, University of Toledo
- 2013-2015 Environmental Specialist/Project Manager, Watterson Environmental & Facilities Management
- 2011-2013 Research Assistant Professor, Department of Environmental Sciences, University of Toledo
- 2010-2011 Post Doctoral Associate, Department of Environmental Sciences, University of Toledo
- 2009-2010 Fellow, National Science Foundation GK-12 Program, University of Toledo
- 2007 Teaching Assistant, Department of Environmental Sciences, University of Toledo
- 2005-2009 Research Assistant, Department of Environmental Sciences, University of Toledo

## TEACHING EXPERIENCE

- 2009-2010 Human Health and the Environment; Senior Science Internship, Bowsher High School, Toledo, OH, (Mentor: David Bourland)
- 2007 Phytoremediation: An Investigative Field Approach to Developing a New Technology. Lake Erie Center Summer Environment Research Institute. University of Toledo – Lake Erie Center, Oregon, OH.

## PUBLICATIONS

- Barnswell, K.D.**, and Dwyer, D.F. (2007) Vascular flora of the King Road Landfill in northwest Ohio. *Ohio Journal of Science*, 107: 91-103.
- Barnswell, K.D.**, and Dwyer, D.F. (2011) Assessing the performance of evapotranspiration covers for municipal solid waste landfills in northwestern Ohio. *Journal of Environmental Engineering*, 137: 301-305.
- Barnswell, K.D.**, and Dwyer, D.F. (2012) Two year performance by evapotranspiration covers for municipal solid waste landfills in northwest Ohio. *Waste Management*, 32: 2336-2341.
- Barnswell, K.D.**, Dwyer, D.F., and Struffolino, P. Development of a simple-linear model to predict fecal contamination at Maumee Bay State Park in western Lake Erie. *In preparation for the Journal of Great Lakes Research*.

## AWARDS

- 2009 Phyto Scholars Program, Phytotechnologies 6<sup>th</sup> International Conference, St. Louis, MZ.
- 2009 30<sup>th</sup> Annual Meeting, Sigma Xi Research Symposium, Toledo, OH,

## PRESENTATIONS

- 2012 **Barnswell, K.D.**, Struffolino, P., Dwyer, D.F. Increased Accuracy in Predicting Water Quality at Swimming Beaches Using a Time –Adjusted, Environmental Model. International Association for Great Lakes Research. Cornwall, Ontario, Canada, May 13-17. (platform)
- 2011 **Barnswell, K.D.**, Czajkowski, K. Prevention of surface water contamination from biosolids application. Great Lakes Restoration Initiative – Lake Erie Synthesis & Coordination Team Ohio Forum #2 – Progress of GLRI in Ohio, Huron, OH, Nov. 29. (platform)
- 2011 **Barnswell, K.D.**, and Dwyer, D.F. Assessing the performance of evapotranspiration covers for municipal solid waste landfills in northwest Ohio. Oak Openings Research Forum, Toledo, OH, Jan. 15. (poster)
- 2010 **Barnswell, K.D.**, and Dwyer, D.F. Designing a constructed wetland system to enhance water quality at Maumee Bay State Park. Great Lakes Beaches Association. 10<sup>th</sup> Annual Conference, Erie, PA, Oct. 19-21. (platform)
- 2009 **Barnswell, K.D.**, and Dwyer, D.F. Field water balance of evapotranspiration covers in northwest Ohio. Phytotechnologies 6<sup>th</sup> International Conference, St. Louis, MZ, Dec. 1-4. (platform)
- 2009 **Barnswell, K.D.**, and Dwyer, D.F. Field water balance of evapotranspiration covers in northwest Ohio. 30<sup>th</sup> Annual Meeting, Sigma Xi Research Symposium, Toledo, OH, April. (platform)
- 2009 Rofkar, J., Duncan, A., **Barnswell, K.**, Armenio, P., Frantz, J., and Heckathorn, S Effects of nitrogen on boron toxicity in *Azolla caroliniana*. 52<sup>nd</sup> Annual Conference on Great Lakes Research, International Association for Great Lakes Research, Toledo, OH, May 18-22. (poster)
- 2009 Duncan, A.M., Gorr, M.W., Rofkar, J.R., **Barnswell, K.D.**, Gottgens, J.F., and Dwyer, D.F. Plant-mediated reductions of arsenic levels in flow-through wetland microcosms. 52<sup>nd</sup> Annual Conference on Great Lakes Research, International Association for Great Lakes Research, Toledo, OH, May 18-22. (poster)
- 2009 **Barnswell, K.D.**, and Dwyer, D.F. Manufactured soil for a landfill evapotranspiration cover using dredged sediment. 10<sup>th</sup> International In Situ and On-Site Bioremediation Symposium, Presented by Battelle. Baltimore, MD, May 5-8. (poster)
- 2008 **Barnswell, K.D.**, and Dwyer, D.F., Manufactured soil for a landfill evapotranspiration cover using dredged sediment. 29<sup>th</sup> Annual Meeting, Sigma Xi Research Symposium, Toledo, OH, Nov. 1. (poster)
- 2008 **Barnswell, K.D.**, Dwyer, D.F. Vascular plants of the King Road Landfill, Lucas County, Ohio. 117<sup>th</sup> Annual Meeting, Ohio Academy of Sciences. Toledo, OH, April 11-13. (platform)
- 2006 **Barnswell, K.D.**, and Dwyer, D.F. Potential use of evapotranspiration covers in northwest Ohio. Oak Openings Region Research Symposium, Toledo, OH, Jan. 20-21. (poster)
- 2005 **Barnswell, K.D.**, and Dwyer, D.F. Vegetation on a non-capped landfill in the Oak Openings Region. 25<sup>th</sup> Annual Sgima Xi Student Research Symposium. University of Toledo, Toledo, OH, April 16. (platform).
- 2004 Rofkar, J.R., **Barnswell, K.D.**, and Dwyer, D.F. Phytoremediation at the King Road Landfill: current progress and future work. 24<sup>th</sup> Annual Sigma Xi Student Research Symposium, University of Toledo, Toledo, OH, April 24. (poster).

## GRADUATE ADVISOR (M.S. and Ph.D)

Dr. Daryl F. Dwyer

## COMMITTEE MEMBERS (Ph.D)

Dr. Andrew Heydinger, Dr. Helen Michaels, Dr. Daryl Moorhead, Dr. Alison Sponberg

## PROFESSIONAL MEMBERSHIPS

International Association for Great Lakes Research  
Society for Ecological Restoration

## REVIEWER

Journal of Environmental Engineering, 2011-2012

## SYNERGISTIC ACTIVITIES

- 2012 Invited speaker: GLRI Helping to Restore Wolf Creek. Maumee AOC Summit, Toledo Botanical Garden Conference Center, Toledo, OH, December 6.
- 2011 Invited speaker: Development of a predictive model for recreational waters at Maumee Bay State Park. Toledo Metropolitan Area Council of Governments Environmental Council Meeting, Toledo, OH, May 26.
- 2011 Invited speaker: Improving water quality and public awareness at Maumee Bay State Park, Ohio. Public lecture series, Lake Erie Center, Oregon, OH, May 5.
- 2010 Invited speaker: Treatment of pathogens and pollutants from the Wolf Creek Watershed. Public meeting, Maumee Bay State Park, Oregon, OH, November 4.
- 2010 Invited speaker: Designing a constructed wetland system for water quality enhancement at Maumee Bay State Park. University of Toledo, Dept. of Environmental Sciences Seminar Series. Toledo, OH. October 15.
- 2010 Invited speaker: Waste Management. Northview High School, Environmental Sciences classes. Sylvania, OH.
- 2008 Invited speaker: Restoration ecology in northwest Ohio. University of Toledo, Conservation Biology course. Sylvania, OH.
- 2006 Invited speaker: Remediation and restoration of the King Road Landfill located in northwest Ohio. University of Toledo, Conservation Biology course, Sylvania, OH.
- 2006 Judge, Northwest Ohio Science Fair, Toledo, OH.
- 2006 Session Chair, Twenty-sixth Annual Sigma Xi Student Research Symposium, Toledo, OH. April
- 2005 Invited speaker: Current and future research by the University of Toledo at King Road Landfill. Ohio EPA Northwest District Office.