

DOUGLAS J. SPIELES

McPhail Center for Environmental Studies
Denison University, Granville, Ohio 43023

spielesd@denison.edu
740-587-5732

EDUCATION

- 8/98 **THE OHIO STATE UNIVERSITY** Columbus, Ohio
Ph.D., Environmental Science Specialization: Wetland Ecology
Thesis: *Invertebrate Community Development Along an Environmental Gradient in a Constructed Wastewater Treatment Wetland*
- 6/96 M.S., Environmental Science Specialization: Environmental Entomology
Thesis: *The Relationship of Prey Type and Abundance to Fecundity and Behavior in the Carabid Gypsy Moth Predator Calosoma sycophanta*
- 4/92 **THE UNIVERSITY OF DAYTON** Dayton, Ohio
B.S., Biology Minor: Chemistry; Education Certification in Biology and Chemistry
University Honors Program, University Scholars Program, *summa cum laude*
Thesis: *The Effect of Red Light and Exogenous Auxin on Lipid Kinase Activity in Maize Mesocotyl Plasma Membranes*

RELEVANT EXPERIENCE

- 8/14 – Present **DENISON UNIVERSITY** Granville, Ohio
Professor; Program Director 2016-
8/08 – 8/14 *Associate Professor; Program Director 2010-2013*
8/02 – 8/08 *Assistant Professor*
Environmental Studies, Ecosystem Management, Wetland Ecology, GIS
- Teach majors and non-majors in environmental studies, 3/2 teaching load
 - Advise environmental studies majors and non-majors in academics and research
 - Curricular Assessment Coordinator, Environmental Studies Program
 - Operate and maintain Environmental Analytical Laboratory
- 8/98-5/02 **SOUTHWEST MINNESOTA STATE UNIVERSITY** Marshall, Minnesota
Assistant Professor Environmental Science, Wetland Ecology, Limnology, Hydrology
- Directed Environmental Science Program, 4/4 teaching load
 - Advised and recruited environmental science majors
 - Designed curriculum, introductory lab manual, seminar series, and handbook
 - Advised SMSU Environmental Science Club
- 9/95 - 8/98 **THE OHIO STATE UNIVERSITY** Columbus, Ohio *Graduate Teaching Assistant*
Introductory Biology, Wetland Ecology, Environmental Pollution, Ecological Modeling
- Instructed general biology lab and recitation for undergraduates
 - Prepared and implemented graduate and undergraduate lecture, lab, and field exercises
- 6/96 – 8/98 **THE OHIO STATE UNIVERSITY** Columbus, Ohio *Graduate Research Assistant*
- Conducted extensive fieldwork during monitoring of hydrologic, chemical, and ecological parameters of constructed wetlands
 - Directed laboratory and data analyses of water and soil quality
- 9/96 - 3/97 **COLUMBUS STATE COMMUNITY COLLEGE** Columbus, Ohio *Adjunct Instructor*
- Instructor of Natural Science 101, a 5-credit introductory science class (2 quarters)
 - Designed and prepared lectures, labs, materials, and evaluation procedures
- PROFESSIONAL MEMBERSHIPS**
- Association of State Wetland Managers, 2005-; Ohio Academy of Science, 2003-; Ohio Environmental Council, 2002-; Licking Land Trust, 2002-; Ecological Society of America, 1997-; Society of Wetland Scientists, 1996-; Association for Environmental Studies and Sciences 2016-

SERVICE AND ACTIVITIES

- Denison University Faculty Incentive Working Group 2015-16
- Denison University Council 2014-15
- Denison University Fall Faculty Symposium moderator 2015
- Midwest Biodiversity Institute, Board of Directors, 2014-
- Denison University Campus Sustainability Cmte. 2013-16; Chair 2013; Vice-Chr. 2014
- Denison University President's Advisory Board, 2010-2013
- Denison University Faculty Marshal, 2010-2015
- Trustee, Licking Land Trust 2004-; Secr. 2006-07; Vice-Chair 2007-12; Chair 2013-
- Ohio Certified Volunteer Naturalist Instructor, OSU Extension, 2007-08, 10, 13, 15
- Associate Editor, *Wetlands*, 2009-2012
- Assistant Language Editor, *Restoration Ecology*, 2006-10
- Society of Wetland Scientists Student Research Grants Committee, 2010-
- Denison University Outdoor Orientation, 2006-12, 16; Faculty Coordinator, 2010-12
- Denison University Academic Affairs Council, 2007-08, 16-; Vice-Chair, 2007-08
- Great Lakes Colleges Association Academic Council representative, 2008
- Preparing Future Faculty mentor, 2007; panelist 2013
- Denison University representative, Center for Academic Integrity, 2007-08
- Denison University Provost Search Committee, 2006-07
- Denison University *ad hoc* Committee, Academic Integrity and Honor Code, 2005-07
- Denison University Campus Affairs Council, 2004-07
- Denison University Board of Academic Integrity, 2004-06
- Denison University Environmental Studies Program Committee, 2002-
- Denison University Environmental Studies Program Assessment Coordinator, 2004-12
- Denison University Faculty Lunch Seminar Series Coordinator, Fall 2004
- Society of Wetland Scientists student presentation awards judge, 2003-2005, 2007
- Society of Wetland Scientists North Central Educ. & Outreach Committee 2003-07
- Reviewer for *Wetlands*, *Ecological Engineering*, *Northeastern Naturalist*, *Ecological Applications*, *The Texas Journal of Science*, *The Journal of Applied Ecology*, *Science of the Total Environment*, *Wetlands Ecology and Management*, *BioRisk*, *Restoration Ecology*, the *International Journal of Biodiversity and Conservation*, *Biological Conservation*, National Science Foundation, Natural Sciences and Engineering Research Council of Canada

HONORS AND AWARDS

- Ohio EPA Surface Water Improvement Fund Grant (co-author); \$40,000, 2010
- Robert C. Good Faculty Fellow, Denison University, 2009
- Denison University Anderson Summer Research Advisor 2005, 06, 07, 08, 10, 11, 13
- Great Lakes College Association Academic Leadership and Innovation Institute, 2007
- Fraternity Faculty Appreciation Award, Denison University, 2007
- Clean Ohio Grant, Spring Valley Property Acquisition (co-author), \$558,500; 2006
- Ohio Biological Survey Travel Grant, \$500; 2006
- Denison University Research Foundation Grant, \$6250; 2006
- Mellon Foundation Dyad Grant, \$1000; 2005
- Hughes Foundation Early Research Experience for Undergraduates (Advisor) 2004
- Establishing Undergraduate Student Research Internships in Environmental Landscape Analysis; \$9,915 awarded by the Minnesota Space Grant Consortium 2000
- Ecological Research at Clearwater Lake, Minnesota; lodging and facilities for undergraduate research awarded by the Clearwater Lake Board of Directors 2000
- Undergraduate Research and GIS Analysis of the Black Rush Lake Restoration; \$20,600 awarded by the Bush Foundation/MN State Colleges and Universities 2000
- Teaching Awards: Southwest State University Faculty Honor Roll 2000, 2001
- Professional Improvement Grant; \$800 awarded by Southwest State University 4/99

- Regional River Monitoring; \$2500 awarded by the Minnesota State Colleges and Universities Center for Teaching and Learning 10/98
- Ohio State University Environmental Science Graduate Assistantship, 1996-1998
- Ohio Agriculture Research and Development Center Graduate Fellowship, 1994-1996

PUBLICATIONS

Books and Book Reviews

- Ruhi, A., G.W. Fairchild, D.J. Spieles, G. Becerra-Jurado, and D. Moreno-Mateos. 2016. Invertebrates in created and restored wetlands. Pp. 525-564 in Batzer, D. and D Boix, eds. *Invertebrates in freshwater wetlands: an international perspective on their ecology*. Springer, New York. 645 pp.
- Spieles, D.J. 2010. *Protected Land: Disturbance, Stress, and American Ecosystem Management*. Springer, New York. 164 pp.
- Spieles, D.J. 2009. Book Review: David Orr, *Earth in Mind*. *Journal of Environmental Psychology* 29:168-170.
- Spieles, D.J. 2005. The role of biomanipulation in aquatic ecosystem restoration. In: A.R. Burk (ed.), *Progress in Aquatic Ecosystems Research*. Nova Science Publishers, New York, NY. 59-82.
- Spieles, D.J. 2001. Wetlands. In: Amato, A.J., J.T. Timmerman, and J.A. Amato (eds). *Draining the Great Oasis: An Environmental History of Murray County, Minnesota*. Crossings Press, Marshall, Minnesota. 282 pp.

Peer-Reviewed Articles

- Spieles, D.J. 2013. Early successional vegetation assembly in a spatially variable hydrologic regime. *Journal of Freshwater Ecology*. 28(5):591-602.
- Mora, J.W, J. Mager, and D. Spieles. 2011. Habitat and landscape suitability as indicators of bird abundance in created and restored wetlands. *ISRN Ecology* 2011:1-10.
- Spieles, D.J. and J. Horn. 2009. Macroinvertebrate community structure in created wetlands of different successional stage. *Aquatic Ecosystem Health and Management* 12(3)320-329.
- Spieles, D.J. and J.W. Mora. 2007. Detrital sequestration and decomposition as measures of ecosystem function in created wetlands. *Journal of Freshwater Ecology* 22(4):571-579.
- Spieles, D.J., M. Coneybeer, and J. Horn. 2006. Community structure and quality after ten years in two central Ohio mitigation bank wetlands. *Environmental Management* 38:837-852.
- Spieles, D.J. 2005. Vegetation development in created, restored, and enhanced mitigation banks of the United States. *Wetlands* 25(1):51-63.
- Spieles, D.J. and W.J. Mitsch. 2003. A model of secondary production and trophic structure in constructed wetlands. *Ecological Modelling* 161:183-194.
- Spieles, D.J. and G. Cunfer. 2002. Collaborative integration of GIS in co-curricular undergraduate research. *Council on Undergraduate Research Quarterly* September 2002: 41-44.
- Spieles, D.J. and W.J. Mitsch. 2000. Macroinvertebrate community structure in high and low

nutrient constructed wetlands. *Wetlands* 20 (4): 716-729.

Spieles, D.J. and W.J. Mitsch. 2000. The effects of season and hydrologic and chemical loading on nitrate retention in constructed wetlands: A comparison of low and high nutrient riverine systems. *Ecological Engineering* 14: 77-91.

Spieles, D.J. and D. Horn. 1998. The Importance of Prey for Fecundity and Behavior in the Gypsy Moth (Lepidoptera: Lymantriidae) Predator *Calosoma sycophanta* (Coleoptera: Carabidae). *Environmental Entomology* 27 (2): 458-462.

SELECTED PRESENTATIONS

The Granville Schools Land Lab: A K-12/College/Government Teaching and Research Collaboration, with J. Reding, G. Smith, J Rettig, R. Homan, T Schultz, A. McCall and B. Sodergren

Ecological Society of America Annual Meeting, Ft. Lauderdale, FL 8/16

Landscape ecology and land conservation

The Dawes Arboretum, Newark, OH 2/16; The Granville Tree and Landscape Commission, Granville, OH 4/16

Early succession in constructed wetlands

The Wilds, Cumberland, OH 10/15

The Land Trust Movement in America and Central Ohio

Columbus Natural History Society, Columbus, OH 3/14

Plant invasion and ecosystem assembly

Denison Science Association, Granville, OH 11/12

Seedling recruitment in variable hydrologic regimes

INTECOL International Wetlands Conference, Orlando, FL 6/12

Holism and individualism in American ecosystem management

Ecological Society of America Annual Meeting, Pittsburgh, PA 8/10

The fate of planted stock in the vegetation and seed bank of a young mitigation wetland

Society of Wetland Scientists Annual Meeting, Madison, WI 6/09

More precious than oil: water and international crisis

Sigma Xi Science Café, Denison University, Granville, OH 10/08

Spatial analysis of Ohio wetland mitigation banks

Society of Wetland Scientists Annual Meeting, Sacramento, CA 6/07 and the Annual Meeting of the Ohio Biological Survey, Columbus, OH 11/06

Organic sequestration and decomposition as measures of function in created wetlands

Ecological Society of America Annual Meeting, Memphis, TN 8/06

Indicators of ecosystem structure and biotic integrity in mitigation wetlands

14th International Conference on Environmental Bioindicators, Baltimore, MD 4/06

An assessment of the floristic and macroinvertebrate communities of two ten-year-old mitigation banks Society of Wetland Scientists Annual Meeting, Charleston, SC, 6/05

Mitigation banks: compensatory creation and restoration of wetlands

Ecosystems Center, Marine Biological Laboratory, Woods Hole, MA, 11/04

Ecological development of mitigation bank wetlands

Denison Scientific Association, Denison University, Granville, OH 11/04 and
University of Dayton Department of Biology, Dayton, OH, 10/04

Vegetation development in created, restored, and enhanced mitigation banks of the United States Ecological Society of America Annual Meeting, Portland, OR, 8/04, Society of Wetland Scientists Annual Meeting, Seattle, WA 7/04, and Ohio Academy of Science Annual Meeting, Youngstown, OH 4/04

A model of macroinvertebrate trophic structure and oxygen demand in freshwater wetlands
Society of Wetland Scientists Annual Meeting, New Orleans, LA 6/03

The Black Swamp: a case study of ecological succession and human inhabitation
American Society for Environmental History Annual Meeting, Providence, RI 3/03

Spatial analysis of waterfowl habitat in a restored prairie wetland
National Wetlands Symposium, Indianapolis, IN 10/02

Macroinvertebrate community structure in high and low nutrient constructed wetlands
Annual Meeting of the Society of Wetland Scientists, Chicago, IL 6/01