

Curriculum Vitae

Ryan W. McEwan

Assistant Professor of Environmental Ecology
The University of Dayton
Department of Biology
300 College Park
Dayton, OH 45469-2320

Office telephone: 937.229.2558
E-mail: ryan.mcewan@udayton.edu

Professional Experience

2008-Present Assistant Professor, University of Dayton, Dayton, OH.
2006-2008. Postdoctoral Scholar, University of Kentucky, Lexington, KY.

Education

2006. Ph.D. Environmental and Plant Biology, Ohio University, Athens, OH.
2002. M.S. Forest Ecology, University of Kentucky, Lexington, KY.
1999. B.S. Forestry, University of Kentucky, Lexington, KY.

Peer-Reviewed Journal Publications

(*corresponding author; ^uundergraduate advisee; ^ggraduate student advisee)

***McEwan, R.W.**, ^uM.K. Birchfield, A. Schoergendorfer and M.A. Arthur. 2009. Leaf phenology and freeze tolerance of the invasive shrub Amur honeysuckle and potential native competitors. *Journal of the Torrey Botanical Society* 136: 212–220.

***McEwan, R.W.**, L.K. Rieske, and M.A. Arthur. 2009. Potential interactions between invasive woody shrubs and the gypsy moth (*Lymantria dispar*), an invasive insect herbivore. *Biological Invasions* 11: 1053-1058.

Matlack, G.R. and **R.W. McEwan**. 2008. Forest in my neighborhood: An exercise using aerial photos to engage students in forest ecology & land use history. *American Biology Teacher* 70: 13-17.

***McEwan, R.W.** and B.C. McCarthy. 2008. Anthropogenic disturbance and the formation of oak savanna in central Kentucky, USA. *Journal of Biogeography* 35: 965-975.

Chiang, J-M, **R.W. McEwan**, D.A. Yaussy and K.J. Brown. 2008. The effects of prescribed fire and mechanical thinning on the aboveground carbon stocks and primary production of overstory trees in an oak-hickory ecosystem in southern Ohio. *Forest Ecology and Management* 225: 1584-1594.

- ***McEwan, R.W.**, T.F. Hutchinson, R. Ford, R. Long and B.C. McCarthy. 2007. Temporal and spatial patterns in fire occurrence during the establishment of mixed-oak forests in eastern North America. *Journal of Vegetation Science* 18: 655–664.
- ***McEwan, R.W.**, T.F. Hutchinson, R. Ford and B.C. McCarthy. 2007. An experimental evaluation of fire history reconstruction using dendrochronology in white oak (*Quercus alba*). *Canadian Journal of Forest Research* 37: 806–816.
- ***McEwan, R.W.** and R.N. Muller. 2006. Spatial and temporal dynamics in canopy dominance of an old-growth central Appalachian forest. *Canadian Journal of Forest Research* 36: 1536–1550.
- ***McEwan, R.W.**, C.H. Keiffer and B.C. McCarthy. 2006. Dendroecology of American chestnut (*Castanea dentata*) in a disjunct stand of oak-chestnut forest. *Canadian Journal of Forest Research* 36: 1–11.
- ***McEwan, R.W.**, R.N. Muller, R.D. Paratley and C.L. Riccardi. 2005. The vascular flora of Big Everidge Hollow, an old-growth mixed mesophytic forest. *Journal of the Torrey Botanical Society* 132: 618–627.
- ***McEwan, R.W.**, C.C. Rhoades and S. Beiting. 2005. American chestnut (*Castanea dentata*) in the pre-settlement forests of Mammoth Cave, west-central Kentucky. *Natural Areas Journal* 25: 275–281.
- ***McEwan, R.W.**, R.N. Muller and B.C. McCarthy. 2005. Vegetation-environment relationships among four canopy-layers in an old-growth mixed mesophytic forest. *Castanea* 70: 32–46.
- ***McEwan, R.W.**, R.N. Muller, M.A. Arthur and H.H. Housman. 2000. Temporal and ecological patterns of flowering dogwood mortality in the mixed mesophytic forest of eastern Kentucky. *Journal of the Torrey Botanical Society* 127: 221–229.

Awarded Grants

2009- 2010. Five Rivers Metroparks (Dayton). “*Dendroecology of Germantown and Twin Creeks Metroparks, southern Ohio: 300-years of Climate Change, Forest Fire and Landscape Dynamics.*” Principal Investigator. \$1,016.

- 2009-2010. Five Rivers Metroparks. "The Role of Native Flora in Preventing Reinvasion of the Invasive Shrub *Lonicera maackii* into Deciduous Forests." Co-Principal Investigator. \$4,784.
- 2009-2010. The University of Dayton: Learn, Lead and Serve Award. "Humans and their forests; reconnecting people with their natural heritage." **Undergraduate Advisor** of Grace P. John. \$2,500.
- 2009-2010. The University of Dayton: Sustainability, Energy and the Environment Seed Grant. "Dendroecology of Germantown and Twin Creeks Metroparks, southern Ohio: 300-years of Climate Change, Forest Fire and Landscape Dynamics." **Principal Investigator**. \$8,089.
- 2009-2010. The University of Dayton: Learning and Teaching Center Innovation Grant. Boot-tread Botany in the Age of Communication: Enhancing student engagement through field-based student Inquiry and e-learning." **Principal Investigator**. \$5,442.
- 2009-2010. The University of Dayton: Research Council Faculty Seed Grant. "*Danse arborealis*: Tree dynamics in an ancient forest and the potential influence of Global Change processes." **Principal Investigator**. \$6,000.
- 2009-2010. The University of Dayton: Learn, Lead and Serve Award. "UD Tree Trail Project" **Undergraduate Advisor** of Nolan Nicaise. \$2,500.
- 2008-2009. University of Kentucky, Undergraduate Research "EUREKA" Grant. "Development of a GIS-Based Model to Predict Amur Honeysuckle Presence in Mature Forests in the Bluegrass Region." **Undergraduate Co-advisor** (with M.A. Arthur) of Ms. Emily Bruner. \$2,000.
- 2007-2008. University of Kentucky, Precision Resource Management Grant Competition. "What determines habitat invasibility of forest fragments?- Temporal dynamics, spatial structures, and habitat vulnerability during plant species invasion." **Co-Principal Investigator** with M.A. Arthur and L.K. Rieske. \$39,700.
- 2006-2007. Kentucky Environmental and Public Protection Cabinet, Co-Principal investigator. "Colonization by invasive plant species into urban and successional forest remnants in the Bluegrass Region of central Kentucky." Principal Investigators: M.A. Arthur, R.D. Paratley and R.W. McEwan. \$7,996.

- 2005-2006. Ohio University Council for Research, Scholarship and Creative Activity. "Historical fire and the ecology of eastern forests." Principal investigator. \$3,322.
- 2004-2005. Ohio Biological Survey. "A dendroecological fire-history reconstruction of Dysart Woods, an old-growth mixed mesophytic forest." Co-principal investigator with B.C. McCarthy. \$480.
- 2004-2005. Southern Appalachian Botanical Society, Earl Core Award. "A dendroecological fire-history reconstruction of Dysart Woods, an old-growth mixed mesophytic forest." Principle investigator. \$300.
- 2003-2004. Sigma Xi, Grant-In-Aid of Research. "A dendroecological analysis of remnant oak-ash savannas in the Bluegrass Region of central Kentucky." Principal investigator. \$500.
- 2002-2003. Kentucky State Nature Preserves Commission. Sherri Evans Memorial Grant. "A dendroecological analysis of remnant savannas in the Bluegrass Region of central Kentucky." Principle investigator. \$1,000.
- 1998-1999. University of Kentucky, Undergraduate Research Creativity Grant. "*Cornus florida* population dynamics in old-growth and second-growth forests." Principle investigator, advised by faculty mentor R.N. Muller. \$1,250.

Student Advising

Graduate Research Advising

Internal

- 2009- Pres. University of Dayton, Department of Biology, MS Thesis Co-Chair, Ms. Rachel Barker
- 2008-Pres. University of Dayton, Department of Biology MS Thesis Committee Member, Mr. Andy Lewis.

External

- 2009- Pres. Wright State University, Department of Biological Science, PhD Committee Member, Ms. Deah Lieraunce.
- 2006-Pres. University of Kentucky. Department of Forestry MS Thesis Committee Member, Ms. Heather Clark.

Undergraduate Research Advising

- 2009- Pres. Katie Norris University of Dayton, Interdisciplinary Studies

-Berry Scholar Thesis, *ongoing*

2008-Pres. Grace P John University of Dayton, Department of Biology
-Best EVB Poster, 2009 Stander Symposium
-Learn, Lead & Serve Award, Spring 2009
-Independent Research, *ongoing*

2008-Pres. Nolan Nicaise University of Dayton, Department of Biology
-Learn, Lead & Serve Award, Fall 2008
-Berry Scholar Thesis, *ongoing*

Professional Service

Grant Reviews

National Science Foundation (NSF) Research in Undergraduate Institutions (NSF-RUI) proposal (Spring 2007).

National Parks Science Scholars Program, Review Panel, American Association for the Advancement of Science (AAAS), National Park Service, Canon USA (Spring 2007).

Journal Manuscript Reviews (Recent).

2009. Northeastern Naturalist
Natural Areas Journal
Castanea

2008. International Journal of Forestry Research
Forest Ecology and Management
The Ohio Journal of Science
Castanea
Plant Ecology
Journal of the Torrey Botanical Society (2 separate manuscripts)

2007. Plant Ecology
Journal of Forest Research
Journal of the Torrey Botanical Society

2006. Forest Ecology and Management
Plant Ecology

Other

Book Review Editor, *Journal of the Torrey Botanical Society*, (2008- Present).

Symposium organizer and moderator, Kentucky Academy of Science 91st Annual Meeting, Richmond, Kentucky Symposium title: "Landscape dynamics in the Bluegrass Region of Kentucky." (Nov. 10, 2005).

Community Service/Outreach

Tree identification website creation: <http://www.plantbio.ohiou.edu/trees>
Hosted by Ohio University, Environmental and Plant Biology.

Lecture and teaching tour of Lilley Cornett Woods. "Forest dynamics over 20 years in an old-growth forest; Lessons from Lilley Cornett Woods." Fall meeting of the East Kentucky Society of American Foresters. (Oct. 17th 2006).

Judge, District Science Fair. Held at Ohio University. (March 5, 2004).

Teaching tour of Dysart Woods. "Old-growth Forest Ecology and Eastern Forest Dendrology". Field-trip group from the 4th Annual Natural Resource Extension Professionals Meeting. (May 18, 2004).

Tree-identification walking tour of Dysart Woods. "The Trees of Dysart Woods, Belmont County, Ohio". Joint meeting of the Buckeye Forest Council and the Ohio Sierra Club. (April 10, 2004).

Arboretum Establishment, Battle Grove Cemetery, Cynthiana, KY. (2002).

Tree selection workshop. "Native trees for the urban and suburban landscape." Invited presentation to the Garden Club of Cynthiana, KY. (May 1999).

Published Abstracts from Professional Meetings

2009

McEwan, R.W., J.M. Dyer and N. Pederson. 2009. Chestnut blight, chainsaws and water from the sky: multiple, interacting, disturbances drive forest dynamics in eastern North America. Ecological Society of America 94th Annual Meeting Abstracts.

Kuchle, C.R., M.A. Arthur, **R.W. McEwan** and S.R. Bray. 2009. Accelerated leaf decomposition in an invasive shrub (*Lonicera maackii*) is a function leaf chemistry, not the decomposition environment. Ecological Society of America 94th Annual Meeting Abstracts.

Wilson, H.N., M.A. Arthur, **R.W. McEwan**, B.D. Lee and R.D. Paratley. 2009. Do mature forests present barriers to non-native plant invasion? A case study of *Lonicera maackii* establishment in deciduous forests of

central Kentucky. Ecological Society of America 94th Annual Meeting Abstracts.

McEwan, R.W., T.F. Hutchinson, R. Ford, and B.C. McCarthy. 2006. An experimental evaluation of fire history reconstruction using dendrochronology in white oak (*Quercus alba*). Ecological Society of America 91st Annual Meeting Abstracts.

McEwan, R.W. 2005. Landscape dynamics in the Bluegrass Region of Kentucky. Kentucky Academy of Science 91st Annual Meeting Abstracts, Journal of the Kentucky Academy of Science.

McEwan, R.W. and B.C. McCarthy. 2005. Tree-ring analysis of remnant bur oak-blue ash vegetation in the Bluegrass Region of Kentucky. Kentucky Academy of Science 91st Annual Meeting Abstracts, Journal of the Kentucky Academy of Science.

McEwan, R.W., T.F. Hutchinson, R. Ford and B.C. McCarthy. 2005. An experimental evaluation of fire history reconstruction using dendrochronology in white oak (*Quercus alba*). Conference abstracts from: Fire in eastern oak forests: Delivering science to land managers. November 15-17, 2005. The Ohio State University, Columbus, Ohio. US Forest Service, General Technical Report.

Chiang, Jyh-min, **R.W. McEwan**, H.E. Ballard and S. Wyatt. 2005. Simulated environments reveal ecotypic differentiation in *Arabidopsis thaliana*. Botanical Society of America Annual Meeting Abstracts.

McEwan, R.W., S. Aldrich, J. Bauer, C. Gentry, J. Kernan, R. Lusteck, P. Martinez, L. Shapiro, C. Sprenger, M. Vining and P. M. Brown. 2005. A tree-ring based fire history reconstruction of red pine (*Pinus resinosa*) forests, Lake Itasca, Minnesota. Ohio Academy of Science 114th Annual Meeting Abstracts. Ohio Journal of Science 105: A-36.

McEwan, R.W., J-M Chiang, H.E. Ballard Jr. and S.E. Wyatt. 2005. Evidence of Ecotypic Differentiation in *Arabidopsis thaliana* grown in three simulated environments. Ohio Academy of Science 114th Annual Meeting Abstracts. Ohio Journal of Science 105: A-24.

Gentry, C., Brown, P.M., Aldrich, S., Bauer, J., Kernan, J., Lusteck, R., **McEwan, R.**, Martinez, P., Shapiro, L., Sprenger, C., Vining, M., and Speer, J. 2005. Reanalysis of the fire history in *Pinus resinosa* stands of the Mississippi headwaters, Itasca State Park, Minnesota. The Association of American Geographers 101st Annual Meeting Abstracts.

McEwan, R.W. and B.C. McCarthy. 2004. Dendroecology of the largest remaining stand of American chestnut (*Castanea dentata*). Ecological Society of America 89th Annual Meeting Abstracts.

McEwan, R.W. and B.C. McCarthy. 2004. Tree-ring analysis of the largest remaining stand of American chestnut (*Castanea dentata* [Marsh.] Borkh.). Association of Southeastern Biologists 65th Annual Meeting. Southeastern Biology 51: 145.

McEwan, R.W., R.N. Muller and B.C. McCarthy. 2003. Vegetation-environment relationships among four canopy-layers in an old-growth mixed mesophytic forest. Ecological Society of America 88th Annual Meeting Abstracts.

McEwan, R.W. and R.N. Muller. 2002. Twenty years of landscape-level change in canopy species dominance in an old-growth mixed mesophytic forest. Ecological Society of America 87th Annual Meeting Abstracts.

McEwan, R.W., R.N. Muller, M.A. Arthur and H.H. Housman. 1999. Temporal and spatial patterns of flowering dogwood mortality in the mixed mesophytic forests of eastern Kentucky. Ecological Society of America 85th Annual Meeting Abstracts.

Recent Professional Lectures

Ohio Natural History Conference. "The chainsaw and the inferno: Historical anthropogenic disturbance and forest dynamics in southern Ohio." Research seminar (20 min). February 28, 2009.

Wright State University. Department of Biology. "Chainsaw, Inferno and Water from the Sky: Who is driving forest dynamics in eastern North America, and who is just along for the ride?" Research seminar (1 hr), March 2, 2009.

1st Kentucky Old-Growth Forest Society Meeting. "Dendroecology of Ancient Oak-Ash Woodlands in the Bluegrass Region of Central Kentucky." Research seminar (40 min.), June 15, 2007.

University of Kentucky, Department of Biology. "Stand dynamics and historical fire in oak forests of eastern North America." Research seminar (1 hr.), February 16, 2007.

Kentucky Urban and Community Forestry Conference. "Tree-ring analysis as a window into the past." Research seminar (30 min.), February 7, 2007.

Tree Board of Lexington, Kentucky. "Anthropogenic disturbance and the formation of oak-ash savanna in the Inner Bluegrass region of central Kentucky." Research seminar (1 hr.), November 6, 2006

University of Kentucky, Department of Biology. "Anthropogenic disturbance and the formation of oak-ash savanna in the Bluegrass region of central Kentucky." Research seminar (1 hr.), October 27, 2006.

University of Kentucky, Department of Forestry. "Stand dynamics and historical fire in oak communities of the mesophytic forest region." Research seminar (1 hr.), October 4, 2006.

Non-refereed Publications

McEwan, R.W. and R.D. Paratley. 2005. Book review. *Plant Life of Kentucky: An illustrated guide to the vascular flora*. Journal of the Torrey Botanical Society 132: 534-535.

McEwan, R.W. and B.C. McCarthy. 2005. Book review. *Phenology: An integrative environmental science*. Journal of the Torrey Botanical Society 132: 170-171.

McEwan, R.W. 2001. Biological heritage and the urban forest. *The Kentucky Arborist* 29: 3-4.

Memberships/Affiliations

2003- Present	Sigma Xi, The Scientific Research Society.
2003- Present	Natural Areas Association.
2001- Present	Ecological Society of America.
2000- Present	Torrey Botanical Society.