# MICHAEL A. JENKINS

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#### **EDUCATION**

Ph.D. in Forest Ecology, 1998. Purdue University, West Lafayette, IN. Dissertation: The response of plant communities to human disturbance in southern Indiana. Advisor: Dr. George Parker M.S. in Forestry, 1992. University of Missouri, Columbia. Thesis: A study of oak decline and vegetation dynamics in the forests of the southeastern Missouri Ozark Mountains. Advisor: Dr.

Stephen Pallardy

B.S. in Botany and Environmental Biology, 1989. Eastern Illinois University, Charleston, IL

#### PROFESSIONAL APPOINTMENTS

Professor, Department of Forestry and Natural Resources, Purdue University
Associate Professor, Department of Forestry and Natural Resources, Purdue University
Assistant Professor, Department of Forestry and Natural Resources, Purdue
University
Vegetation Ecologist, GS-12, National Park Service
Vegetation Ecologist, GS-11, National Park Service
Vegetation Ecologist, GS-09, National Park Service
Graduate Instructor, Department of Forestry and Natural Resources, Purdue
rsity
Forestry Technician, USDA Forest Service

1990-1992 Graduate Research Assistant, School of Natural Resources, University of Missouri

#### Adjunct Appointments

2008-	Adjunct Associate Professor, School of Forest Resources and Environmental Science, Michigan Technological University
2006-2014	Adjunct Assistant Professor, Department of Forestry and Natural Resources, Clemson University
2002-2009 Florida	Courtesy Faculty, School of Forest Resources and Conservation, University of
2003-2008 Hill	Graduate Faculty, Curriculum in Ecology, University of North Carolina at Chapel
2006-2008	Special Faculty Appointment, Department of Ecology and Evolutionary Biology, University of Tennessee

#### HONORS AND AWARDS

- Outstanding Paper Award for 2015, Invasive Plant Science and Management (awarded by the Weed Science Society of America for paper co-authored with graduate student)
- Department of Forestry and Natural Resources, Outstanding Undergraduate Teaching Award (Early Career), 2012 and 2013

- Nominee, Richard L. Kohl's Outstanding Early Career Teaching Award in the College of Agriculture, 2012 and 2013
- DOI National Park Service On-the-Spot Award 2005 (awarded for excellence in research)
- USDA Forest Service National Wilderness Award for Excellence in Wilderness Management Research 1999
- Purdue Research Foundation Environmental Research Fellowship 1996-1997
- USDA Certificate of Merit 1992
- Phi Sigma Biological Honor Society 1989
- Beta Beta Beta Biological Honor Society (chapter vice president 1989)
- Burgner Memorial Scholarship in Environmental Biology 1988

## RESEARCH

## **Refereed Publications**

**Journal Articles** (underlined names are post-doctoral and graduate advisees)

- 1. Jenkins, M.A. and C.R. Webster. 2019. Age structure and recruitment of *Trillium luteum* (Trilliaceae) populations in secondary forests of the southern Appalachian Mountains. *Journal of the Torrey Botanical Society* 146: 239-251.
- 2. <u>Mulroy, M.L.</u>, E.J. Holzmueller, and M.A. Jenkins. 2019. Woody regeneration response to overstory mortality caused by the hemlock woolly Adelgid (*Adelges tsugae*) in the southern Appalachian Mountains. *Forests* 10: 717. *Invited*
- 3. <u>Frank, G.S., C.H.</u> Nakatsu, and M. A. Jenkins. 2018. Soil chemistry and microbial community functional responses to invasive shrub removal in mixed hardwood forests. *Applied Soil Ecology* 131: 75-88.
- 4. <u>Frank, G.S.</u>, M.R. Saunders, and M.A. Jenkins. 2018. Short-term vegetation responses to invasive shrub control techniques for Amur honeysuckle (*Lonicera maackii* [Rupr.] Herder). *Forests* 9: 607 *Invited Feature Paper in special issue*
- 5. Webster, C. R., Y. L. Dickinson, J. I. Burton, L. E. Frelich, M. A. Jenkins, C. C. Kern, P. Raymond, M. R. Saunders, M. B. Walters, and J. L. Willis. 2018. Promoting and maintaining diversity in contemporary hardwood forests: confronting contemporary drivers of change and the loss of ecological memory. *Forest Ecology and Management* 421: 98-108. *Invited Tamm Review*
- 6. <u>Swaim, J.T</u>, D.C Dey, M.R. Saunders, D.R. Weigel, C.D. Thornton, J.M. Kabrick, and M.A. Jenkins. 2018. Overstory species response to clearcut harvest across environmental gradients in hardwood forests. *Forest Ecology and Management* 428: 66-80.
- 7. <u>Murray, B.D.</u>, J.D. Holland, K.S. Summerville, J.B. Dunning, Jr., M.R. Saunders, and M.A. Jenkins. 2017. Functional diversity response to forest management varies with taxon and spatial scales in hardwood forests. *Ecological Applications* 27: 1064-1081.
- 8. Owings, C.F., D.F. Jacobs, J.M. Shields, M.R. Saunders and M.A. Jenkins. 2017. Individual and interactive effects of white-tailed deer and an exotic shrub on artificial and natural regeneration in mixed hardwood forests. *AoB Plants* 9:plx024. doi: 10.1093/aobpla/plx024. *Invited*
- 9. Verheyen, K., P. De Frenne, L. Baeten, D.M. Waller, R. Hédl, M.P. Perring, H. Blondeel, J. Brunet, M. Chudomelova, G. Decocq, E. De Lombaerde, L. Depauw, T. Dirnböck, T. Durak, O. Eriksson, F.S. Gilliam, T. Heinken, S. Heinrichs, M. Hermy, B. Jaroszewicz, M.A. Jenkins, S.E. Johnson, K.J. Kirby, M. Kopecký, D. Landuyt, J. Lenoir, D. Li, M.

- Macek, S. Maes, F. Máliš, F.J.G. Mitchell, T. Naaf, G. Peterken, P. Petřík, K. Reczyńska, D.A. Rogers, F. Hoistad Schei, W. Schmidt, T. Standovár, K. Świerkosz, K. Ujházy, H. Van Calster, M. Vellend, O. Vild, K. Woods, M. Wulf, and M. Bernhard-Römermann. 2017. Combining biodiversity resurveys across regions to advance global change research. *Bioscience* 67: 73-83.
- 10. Webster, C.R., J.H. Rock, and M.A. Jenkins 2017. Response of spring flora to increasing abundance of woody plants within deer exclosures. *Journal of the Torrey Botanical Society* 144: 1-14.
- 11. <u>Lowney, C.A., B.D. Graham</u>, M.A. Spetich, S.R. Shifley, M.R. Saunders, and M.A. Jenkins. 2016. Two decades of compositional and structural change in deciduous oldgrowth forests of Indiana, USA. *Journal of Plant Ecology* 9: 256-271. *Editor's Choice article*
- 12. <u>Murray, B.D.</u>, C.R. Webster, M.A. Jenkins, M.R. Saunders, and S. Haulton. 2016. Ungulate impacts on herbaceous-layer plant communities in even-aged and unevenaged managed forests. *Ecosphere* 7: e01378. 10.1002/ecs2.1378
- 13. <u>Swaim, J.T.</u>, D.C. Dey, M.R. Saunders, D.R. Weigel, C.D. Thornton, J.M. Kabrick, and M.A. Jenkins. 2016. Predicting the height growth of oak species (*Quercus*) reproduction over a 23-year period following clearcutting. *Forest Ecology and Management* 364: 101-112.
- 14. <u>Jenkins, L.H., B.D. Murray, M.A.</u> Jenkins, and C.R. Webster. 2015. Woody regeneration response to over a decade of deer population reductions in Indiana state parks. *Journal of the Torrey Botanical Society* 142: 205-219.
- 15. <u>Morrissey, R.C.</u>, M.R. Saunders, and M.A. Jenkins. 2015. Successional and structural responses to overstorey disturbance in managed and unmanaged forests. *Forestry* 88: 376-389.
- 16. Shields, J.M., M.A. Jenkins, M.R. Saunders, K.D. Gibson, P.A. Zollner, and J.B. Dunning. 2015. Influence of intensity and duration of invasion by Amur honeysuckle (*Lonicera maackii*) on mixed hardwood forests of Indiana. *Invasive Plant Science and Management* 8: 44-56. *Outstanding Paper Award* 2015
- 17. <u>Shields, J.M.</u>, M.R. Saunders, K.D. Gibson, P.A. Zollner, J.B. Dunning, and M.A. Jenkins. 2015. Short-term response of native flora to the removal of non-native shrubs in mixedhardwood forests of Indiana, USA. *Forests* 6: 1878-1896.
- 18. Webster, C.R., M.A. Jenkins, and A.J. Poznanovic. 2015. Spatial patterning and floral synchrony among trillium populations with contrasting histories of herbivory. *PeerJ* 3:e782 https://dx.doi.org/10.7717/peerj.782
- 19. <u>Jenkins, L.H.</u>, M.A. Jenkins, C.R. Webster, P.A. Zollner, and <u>J.M. Shields</u>. 2014. Herbaceous layer response to 17 years of controlled deer hunting in forested natural areas. *Biological Conservation* 175: 119-128.
- 20. <u>Morrissey, R.C.</u>, M.A. Jenkins, and M.R. Saunders. 2014. Accumulation and connectivity of coarse woody debris in partial harvest and unmanaged relict forests. *PLoS ONE 9:* e113323. doi:10.1371/journal.pone.0113323
- 21. <u>Parks, A.</u>, M. Jenkins, M. Ostry, P. Zhao, and K. Woeste. 2014. Biotic and abiotic factors affecting the genetic structure and diversity of butternut in the southern Appalachian Mountains, USA. *Tree Genetics and Genomes* 10: 541-554.
- 22. <u>Shields, J.M.</u>, M.A. Jenkins, M.R. Saunders, H. Zhang, <u>L.H. Jenkins</u>, and <u>A.M. Parks</u>. 2014. Age distribution and spatial patterning of an invasive shrub in secondary hardwood forests. *Forest Science* 60: 830-840.
- 23. <u>Shields, J.M.</u>, M.A. Jenkins, P.A. Zollner, and M.R. Saunders. 2014. Effects of Amur honeysuckle invasion and removal on white-footed mice. *Journal of Wildlife Management* 78: 867-880.

- 24. Webster, C.R. and M.A. Jenkins. 2014. Evidence of long and discontinuous juvenile periods in *Trillium catesbaei* under contrasting levels of herbivory. *Botany* 92: 77-81.
- 25. De Frenne, P., F. Rodríguez-Sánchez, D.A. Coomes, L. Baeten, G. Verstraeten, M. Vellend, M. Bernhardt-Römermann, C.D. Brown, J. Brunet, J. Cornelis, G. Decocq, H. Dierschke, O. Eriksson, F.S. Gilliam, R. Hédl, T. Heinken, M. Hermy, P. Hommel, M.A. Jenkins, D. L. Kelly, K.J. Kirby, F.J.G. Mitchell, T. Naaf, M. Newman, G. Peterken, P. Petřík, J. Schultz, G. Sonnier, H. Van Calster, D.M. Waller, G. Walther, P.S. White, K. Woods, M. Wulf, B.J. Graae, and K. Verheyen. 2013. Microclimate moderates plant responses to macroclimate warming. *Proceedings of the National Academy of Sciences USA* 110 18561-18565.
- 26. <u>Parks, A.M.</u>, M.A. Jenkins, K.E. Woeste, and M.E. Ostry. 2013. Conservation status of a threatened tree species: establishing a baseline for restoration of *Juglans cinerea* L. in the southern Appalachian Mountains. *Natural Areas Journal* 33: 413-426.
- 27. Quackenbush, P.M., R.A. Butler, N.C. Emery, M.A. Jenkins, E.J. Kladivko, and K.D. Gibson. 2013. Invasive earthworms and plants in Indiana old and second growth forests. *Invasive Plant Science and Management* 6: 161-174.
- 28. Stehn, S.E., M.A. Jenkins, C.R. Webster, and S. Jose. 2013. Regeneration responses to exogenous disturbance gradients in southern Appalachian *Picea-Abies* forests. *Forest Ecology and Management* 289: 98-105.
- 29. Bardhan, S., S. Jose, M.A. Jenkins, C.R. Webster, R.P. Udawatta, and S.E. Stehn. 2012. Microbial community diversity and composition across a gradient of soil acidity in spruce-fir forests of the southern Appalachian Mountains. *Applied Soil Ecology* 61: 60-68.
- 30. Lessard, J.P., W.N. Reynolds, W.A. Bunn, M.A Genung, M.A. Cregger, E. Felker-Quinn, M.N. Barrios-Garcia, M.L. Stevenson; M. Lawton, C.B. Brown, M. Patrick, J.H. Rock, M.A. Jenkins, J.K. Bailey, and J.A. Schweitzer. 2012. Equivalence in the strength of deer herbivory on above and below ground communities. *Basic and Applied Ecology* 13: 59-66.
- 31. Krapfl, K.J., E.J. Holzmueller, and M.A. Jenkins. 2012. Understory composition of five *Tsuga canadensis* associated communities in Great Smoky Mountains National Park. *Natural Areas Journal* 32: 260-269.
- 32. Quackenbush, P.M., R.A. Butler, N.C. Emery, M.A. Jenkins, E.J.Kladivko, and K.D. Gibson. 2012. *Lumbricus terrestris* prefers to consume garlic mustard (*Alliaria petiolata*) seeds. *Invasive Plant Science and Management* 5: 148-154.
- 33. Jenkins, M.A., R.N. Klein, and V.L. McDaniel. 2011. Yellow pine regeneration as a function of fire severity and post-fire stand structure in the southern Appalachian Mountains. *Forest Ecology and Management* 262: 681-691.
- 34. Krapfl, K.J., E.J. Holzmueller, and M.A. Jenkins. 2011. Early impacts of the hemlock woolly adelgid in *Tsuga canadensis* forests of the southern Appalachian Mountains. *Journal of the Torrey Botanical Society* 138: 93-106.
- 35. Stehn, S.E., C.R. Webster, and M.A. Jenkins. 2011. High-elevation ground-layer plant community composition across environmental gradients in spruce-fir forests. *Ecological Research* 26: 1089-1101.
- 36. Kuppinger, D.M., M.A. Jenkins, and P.S. White. 2010. Predicting the post-fire establishment and persistence of an invasive tree species across a complex landscape. *Biological Invasions* 12: 3473-3484.
- 37. Stehn, S.E., C.R. Webster, J.M. Glime, and M.A. Jenkins. 2010. Elevational gradients of bryophyte diversity, life forms, and community assemblage. *Canadian Journal of Forest Research* 40: 2164-2174.
- 38. Stehn, S.E., C.R. Webster, J.M. Glime, and M.A. Jenkins. 2010. Ground-layer bryophyte communities of post-adelgid *Picea-Abies* forests. *Southeastern Naturalist* 9: 435-452.

- 39. Bunn, W.A., M.A. Jenkins, C.B. Brown, and N.J. Sanders. 2010. Temporal change within and among montane forest communities: the influence of historic disturbance and environmental gradients. *Ecography* 33: 425-434.
- 40. Tang, L., G. Shao, Z. Piao, L. Dai, M.A. Jenkins, S. Wang, G. Wu, J. Wu, and J. Zhao. 2010. Forest degradation deepens around and within protected areas: the case in East Asia. *Biological Conservation* 143: 1295-1298.
- 41. Holzmueller, E.J., S. Jose, and M.A. Jenkins. 2010. Ecological consequences of an exotic fungal disease in eastern hardwood forests. *Forest Ecology and Management* 259: 1347-1353.
- 42. Jenkins, M.A. and C.R. Webster. 2009. Spatial patterning and population structure of a common woodland herb, *Trillium erectum*, in primary and post-logging secondary forests. *Forest Ecology and Management* 258: 2569-2577.
- 43. Holzmueller, E.J., S. Jose, and M.A. Jenkins. 2009. The response of understory species composition, diversity, and seedling regeneration to repeated burning in southern Appalachian oak-hickory forests. *Natural Areas Journal* 29: 255-262.
- 44. Thiemann J.A., C.R. Webster, M.A. Jenkins, P.M. Hurley, J.H. Rock, and P.S. White. 2009. Herbaceous-layer impoverishment in a post-agricultural southern Appalachian landscape. *American Midland Naturalist* 162: 148-168.
- 45. Webster, C.R., J.H. Rock, R.E. Froese, and M.A. Jenkins. 2008. Drought-herbivory interaction disrupts competitive displacement of native plants by *Microstegium vimineum*, 10 year results. *Oecologia* 157: 497-50.
- 46. Webster, C.R. and M.A. Jenkins. 2008. Age structure and spatial patterning of *Trillium* populations in old-growth forests. *Plant Ecology* 199: 43-54.
- 47. Holzmueller, E.J., S. Jose, and M.A. Jenkins. 2008. The relationship between fire history and an exotic fungal disease in a deciduous forest. *Oecologia* 155: 347-356.
- 48. Jenkins, M.A., S. Jose, and P.S. White. 2007. Impacts of an exotic disease and vegetation change on foliar calcium cycling in Appalachian forests. *Ecological Applications* 17: 869-881.
- 49. Jenkins, M.A., C.R. Webster, and J.R. Rock. 2007. Effects of chronic herbivory and historic land use on population structure of a forest perennial, *Trillium catesbaei*. *Applied Vegetation Science* 10: 441-450.
- 50. Jenkins, M.A. 2007. Vegetation communities of Great Smoky Mountains National Park. Southeastern Naturalist 6 (Special Issue 1): 35-56. *Invited*
- 51. Holzmueller, E.J., S. Jose, and M.A. Jenkins. 2007. Influence of calcium, potassium, and magnesium on *Cornus florida* L. density and resistance to dogwood anthracnose. *Plant and Soil* 290: 189-199.
- 52. Holzmueller, E.J., S. Jose, and M.A. Jenkins. 2007. Influence of *Cornus florida* L. on calcium mineralization in two southern Appalachian forest types. *Forest Ecology and Management* 245: 110-117.
- 53. Webster, C.R., M.A. Jenkins, and S. Jose. 2007. Invasion biology and control of invasive woody plants in eastern forests. *Native Plants Journal* 8: 97-106. *Invited*
- 54. Jenkins, S.E. and M.A. Jenkins. 2006. Effects of prescribed fire on the vegetation of a savanna-glade complex in northern Arkansas. *Southeastern Naturalist* 5: 113-126.
- 55. Webster, C.R., M.A. Jenkins, and S. Jose. 2006. Woody invaders and the challenges they pose to forest ecosystems in the eastern United States. *Journal of Forestry* 104: 366-374.
- 56. Griggs, J.A., J.H. Rock, C.R. Webster, and M.A. Jenkins. 2006. Vegetative legacy of a protected deer herd in Cades Cove, Great Smoky Mountains National Park. *Natural Areas Journal* 26: 126-136.
- 57. Holzmueller, E., S. Jose, M.A. Jenkins, A.E. Camp, and A.J. Long. 2006. Dogwood anthracnose: what is known and what can be done? *Journal of Forestry* 104: 21-26.

- 58. Webster, C.R. and M.A. Jenkins. 2005. Coarse woody debris dynamics in the southern Appalachians as affected by topographic position and anthropogenic disturbance history. *Forest Ecology and Management* 217: 319-330.
- 59. Webster, C.R., M.A. Jenkins, and J.H. Rock. 2005. Long-term response of spring flora to chronic herbivory and deer exclusion in Great Smoky Mountains National Park, USA. *Biological Conservation* 125: 297-307.
- 60. Webster, C.R., M.A. Jenkins, and J.H. Rock. 2005. Twenty years of forest change in the woodlots of Cades Cove, Great Smoky Mountains National Park. *Journal of the Torrey Botanical Society* 132: 280-292.
- 61. Jenkins, M.A., C.R. Webster, G.R. Parker, and M.A. Spetich. 2004. Coarse woody debris in managed Central Hardwood forests of Indiana, USA. *Forest Science* 50: 781-792.
- 62. Jenkins, M.A. 2003. Impact of the balsam woolly adelgid (*Adelges piceae* Ratz.) on an *Abies fraseri* (Pursh) Poir. dominated stand near the summit of Mount LeConte, Tennessee. *Castanea* 68: 109-118.
- 63. Jenkins, M.A. and P.S. White. 2002. *Cornus florida* mortality and understory composition changes in western Great Smoky Mountains National Park. *Journal of the Torrey Botanical Society* 129: 194-206.
- 64. Webster, C.R., M.A. Jenkins, and G.R. Parker. 2001. A field test of herbaceous plant indicators of deer browsing intensity in mesic hardwood forests of Indiana, USA. *Natural Areas Journal* 21: 149-158.
- 65. Jenkins, M.A. and G.R. Parker. 2001. Woody species composition of disturbed forests in intermittent stream bottomlands of southern Indiana. *Journal of the Torrey Botanical Society* 128: 165-175.
- 66. Jenkins, M.A. and G.R. Parker. 2000. The response of herbaceous-layer vegetation to anthropogenic disturbance in intermittent stream bottomland forests of southern Indiana, USA. *Plant Ecology* 151: 223-237.
- 67. Jenkins, M.A. and G.R. Parker. 2000. Changes in the forest landscape of the Charles C. Deam Wilderness, southern Indiana: 1939-1990. *Natural Areas Journal* 20: 46-55.
- 68. Jenkins, M.A. and G.R. Parker. 1999. Composition and diversity of ground-layer vegetation in silvicultural openings of southern Indiana forests. *American Midland Naturalist* 142: 1-16.
- 69. Jenkins, M.A. and G.R. Parker. 1998. Composition and diversity of woody vegetation in silvicultural openings of southern Indiana forests. *Forest Ecology and Management* 109: 57-74.
- 70. Jenkins, M.A. and S.G. Pallardy. 1995. The influence of drought on red oak group species growth and mortality in the Missouri Ozarks. *Canadian Journal of Forest Research* 25: 1119-1127.
- 71. McClain, W.E., M.A. Jenkins, S.E. Jenkins, and J.E. Ebinger. 1993. Changes in the woody vegetation of a bur oak savanna remnant in central Illinois. *Natural Areas Journal* 13: 108-114.
- 72. Baumgartner, S.S., S.E. Jenkins, M.A. Jenkins, and J. E. Ebinger. 1992. Woody vegetation survey of Sullivan Woods, Moultrie County, Illinois. *Erigenia* 12: 7-12.

## Proceedings and symposia

- 73. Holzmueller, E.J., S. Jose, and M.A. Jenkins. 2006. The effect of fire on flowering dogwood stand dynamics in Great Smoky Mountains National Park. Pages 496-498 in Proceedings of the Thirteenth Biennial Southern Silvicultural Research Conference, Memphis, TN. USDA Forest Service Gen. Tech. Rep. SRS-92.
- 74. Jenkins, M.A. and S.E. Jenkins. 1999. Savanna and glade vegetation of Turkey Mountain, Arkansas: effects of a single prescribed burn. Pages 127-134 in Proceedings of the 15th North American Prairie Conference. Natural Areas Association, Bend, OR.

- 75. Jenkins, M.A. and G.R. Parker. 1997. Changes in down deadwood volume across a chronosequence of silvicultural openings in southern Indiana forests. Pages 162-169 in Proceedings of the Eleventh Central Hardwood Forest Conference, University of Missouri, Columbia, MO, USDA Forest Service General Technical Report NC-188.
- 76. Jenkins, M.A. and S.G. Pallardy. 1993. A comparison of forest dynamics at two sites in the southeastern Ozark Mountains of Missouri. Pages 327-341 in Proceedings of the Ninth Central Hardwood Forest Conference, Purdue University, West Lafayette, IN, USDA Forest Service General Technical Report NC-161.

### **Book chapters**

- 77. Jenkins, M.A. 2013. The history of human disturbance in forest ecosystems of southern Indiana. Pages 2-11 *in* Swihart, R.K., Saunders, M.R., Kalb, R.A., and Michler, C.H., eds.
  - In The Hardwood Ecosystem Experiment: a framework for studying responses to forest management. Gen. Tech. Rep. NRS-P-108. U.S. Department of Agriculture, Forest Service, Northern Research Station, Newtown Square, PA. [CD ROM] 350 p.
- 78. Jenkins, M.A. and K.D. Johnson. 2009. Exotic plant species invasion and control in Great Smoky Mountains National Park, USA. Pages 295-322 *in Invasive Plants and Forest Ecosystems*, R.K. Kohli, S. Jose, H.R. Singh, and D.R. Batish, eds. CRC Press-Taylor and Francis Group, Boca Raton, FL.
- 79. Webster, C.R., M.A. Jenkins, S. Jose, and L. M. Nagel. 2009. Exotic herb layers as ecological filters in forest understories. Pages 76-89 in Forest Canopies: Forest Production, Ecosystem Health and Climate Conditions, J.D. Creighton and P.J. Roney, eds. Nova Science Publishers, Hauppauge, NY.

## <u>Invited Presentations</u> (of >110 total presentations)

- 1. Jenkins, M.A., B.S. Howard, S.A. Goehl, D.R. Miller, and J.L. Brinkman. 2019. Use of vegetation monitoring and professional sharpshooters in white-tailed deer (*Odocoileus virginianus*) management at Eagle Creek Park in Indianapolis. Forests in Cities: A National Workshop, Natural Areas Conservancy, New York, NY.
- 2. Jenkins, M.A. 2019. Silviculture, forest management, and wildlife: how do they all fit? Woodland Wildlife Steward Professional Workshop, Morgan-Monroe State Forest, IN
- 3. Jenkins, M.A. 2019. What could possibly go wrong? The effects and control of woody invasives in eastern hardwood forests. Spring Seminar Series, School of Forest Resources and Environmental Science, Michigan Technological University, Houghton.
- 4. Jenkins, M.A. 2018. When good species go bad: deer and invasive plants in eastern forests. Fall Seminar Series, Department of Biology, Wabash College, Crawfordsville, IN.
- 5. Jenkins, M.A. 2018. What is old-growth forest and why is it important? Indiana Society of American Foresters Spring Meeting, Spring Mill State Park, Mitchell, IN.
- 6. Jenkins, M.A. 2018. Asian bush honeysuckle invasion and control. Purdue Extension Invasive Species Collaborative Meeting, John S. Wright Forestry Center, West Lafayette, IN.
- 7. Jenkins, M.A. 2018. Forest Understory vegetation and responses to timber harvesting.
  Management in Ecologically Sensitive Forest Communities Training Workshop, Indiana
  Department of Natural Resources-Division of Forestry, Brown County State Park, Nashville,
  IN
- 8. Jenkins, M.A., and C.R. Webster. 2018. The response of Trillium populations to chronic herbivory and historic logging in the southern Appalachian Mountains. Great Smoky Mountains National Park Research Colloquium, Gatlinburg, TN.

- 9. Marschall, E.M., A. Soordelua, Y.-H. Lu, and M.A. Jenkins. 2018. Analyzing temporal shifts in phenology using images collected from social networks. Great Smoky Mountains National Park Research Colloquium, Gatlinburg, TN.
- 10. Mulroy, M.L. and M.A. Jenkins. 2018. Forest ecosystem response to eastern hemlock mortality in the southern Appalachian Mountains. Great Smoky Mountains National Park Research Colloquium, Gatlinburg, TN.
- 11. Jenkins, M.A., L.H. Keitzer, and C.R. Webster. 2017. Understory response to 17 years of controlled deer hunting in Indiana state parks. North American Forest Ecology Workshop, Edmonton, Canada.
- 12. Jenkins. M.A. 2017. Pick your poison: invasive plants and overabundant deer populations in temperate forests. Spring Graduate Seminar Series, Department of Biological Sciences, Eastern Illinois University, Charleston, IL.
- 13. Jenkins, M.A. 2017. Oak biology and disturbance ecology. Plenary speaker, Central Hardwoods Oak Ecology and Wildlife Management Conference, Nashville, IN.
- 14. Jenkins, M.A. 2017. History and ecological effects of invasive plants in Indiana forests. Indiana Department of Natural Resources Division of Fish and Wildlife Annual Conference, Nashville, IN.
- 15. Jenkins, M.A. 2017. Ecological effects of white-tailed deer and invasive plants. North American College Teachers in Agriculture Annual Meeting, West Lafayette, IN.
- 16. Jenkins, M.A. 2017. Using social media to track changes in global phenology. Vertically Integrated Projects Midwest Workshop, Notre Dame University, South Bend, IN.
- 17. Jenkins, M.A., C.R. Webster, and J.R. Rock. 2016. Using long-term data to understand the effects of overabundant deer populations in forested natural areas. 2016 Changbai Mountain Ecological Forum-Precision Conservation of Ecosystems in the Era of Big Data. Changbai Mountain, China.
- 18. Jenkins, M.A., C.C. Freeman, and D.F. Jacobs. 2016. The effects of white-tailed deer and *Lonicera maackii* on native vegetation and underplanted seedlings in mixed hardwood forests. Botany 2016 (Annual Meeting of the Botanical Society of America), Savanna, GA.
- 19. Jenkins, M.A. 2015. When good plants go bad: mechanisms and effects of invasion. Plenary speaker, Midwest Invasive Plants Network Invasive Plants Symposium, Indianapolis, IN.
- 20. Jenkins, M.A. 2015. Plant community and soil effects of planted pine on abandoned agricultural land. 31st Annual Central States Forest Soils Workshop, Yellowwood State Forest, IN.
- 21. Jenkins, M.A. 2014. Deer overabundance in natural areas: does hunting allow recovery of vegetation communities? Department of Natural Resource Ecology and Management Fall Seminar Series, Iowa State University, Ames.
- 22. Jenkins, M.A. 2014. Thinking like a mountain: deer overabundance and community response in natural areas. Department of Natural Resources and Environmental Sciences Departmental Seminar, University of Illinois, Urbana.
- 23. Jenkins, M.A. 2014. The mountain and its deer: the effects of overabundance in natural areas. Center for Ecology Distinguished Speaker Series, Southern Illinois University, Carbondale.
- 24. Jenkins, M.A. 2013. Threats to native plant diversity in Indiana forests. Indiana Native Plant and Wild Flower Society Annual Meeting, Carmel, IN.
- 25. Jenkins, M.A. 2012. Returning fire to the southern Appalachians: unintended consequences in a post-invasion landscape. Department of Biology Spring Seminar Series, Wright State University, Dayton, OH.
- 26. Jenkins M.A. 2012. Coarse woody debris in managed and unmanaged hardwood forests. Woody Biomass in Indiana Conference, Clifty Falls State Park, Madison, IN.

- 27. Jenkins, M.A. 2012. Ecology of natural disturbance. Indiana Society of American Foresters Winter Meeting, Fort Harrison State Park, Indianapolis, IN.
- 28. Jenkins, M.A. 2011. Protection vs. preservation: deer overabundance and community response in natural areas. Department of Environmental and Plant Biology Fall Colloquium, Ohio University, Athens.
- 29. Jenkins, M.A. 2011. Invasive species and disturbance. Indiana Forest Stewardship Coordinating Committee Meeting, Indianapolis, IN.
- 30. Jenkins, M.A. 2011. The rules have changed: unintended consequences of endemic disturbance in a post-invasion landscape. Department of Natural Resource Ecology and Management Spring Seminar Series, Iowa State University, Ames.
- 31. Jenkins, M.A. 2010. Fire in the southern Appalachians: an endemic disturbance in a postinvasion landscape. Department of Biology Graduate Seminar Series, Western Illinois University, Macomb, IL.
- 32. Jenkins, M.A., C.R. Webster, and E.J. Holzmueller. 2010. The rise and fall of eastern hemlock: perspectives from the Northwoods and Appalachia. Ecological Society of America Annual Meeting, Pittsburgh, PA.
- 33. Jenkins, M.A. Endemic disturbance in a post-invasion landscape. 2010. Tyson Summer Seminar Series in Ecology and Evolution, Tyson Research Center, Washington University, St. Louis, MO.
- 34. Jenkins, M.A. 2010. The herbaceous layer of forest understories. Indiana Society of American Foresters Annual Meeting, Brown County State Park, IN.
- 35. Jenkins, M.A. 2009. Saving all the pieces: preserving biodiversity during a time of ecological change. Department of Biology Guest Lecture Series, Ball State University, Muncie, IN.
- 36. Jenkins, M.A. 2009. What comes after preservation? Unraveling the mechanisms and effects of ecological change in Great Smoky Mountains National Park. School of Forest Resources and Environmental Science, Michigan Technological University, Houghton, MI.
- 37. Jenkins, M.A. 2008. Preserving nature during a time of ecological change: biological invasions and shifting disturbance regimes in Great Smoky Mountains National Park. Ecolunch Seminar, Department of Biological Sciences, Purdue University, IN.
- 38. Jenkins, M.A., D.M. Kuppinger, and P.S. White. 2008. Fire management in a post-invasion landscape: establishment and persistence of *Paulownia tomentosa* in the southern Appalachians. Ecological Society of America Annual Meeting, Milwaukee, WI.
- 39. Jenkins, M.A. 2007. Fire, climate change, and the response of invasive species. Southern Blue Ridge Fire Learning Network Workshop, Pigeon Forge, TN.
- 40. Jenkins, M.A. 2007. Data analysis and integration of fire effects research. Introduction to Fire Effects Training Workshop, Pigeon Forge, TN.
- 41. Jenkins, M.A. 2006. Blights, bugs, and burns: understanding seventy years of human impacts at Great Smoky Mountains National Park. Ecology Seminar Series, Curriculum in Ecology, University of North Carolina at Chapel Hill.
- 42. Jenkins, M.A. 2006. Vegetation monitoring at Great Smoky Mountains National Park: some results. Forest Vegetation Monitoring Working Group, NPS Eastern Parks and Networks Annual Meeting, Shenandoah National Park, Luray, VA.
- 43. Jenkins, M.A. 2005. Educational outreach and research collaboration at Great Smoky Mountains National Park. Fifth Annual NPS Inventory and Monitoring Program National Meeting, San Diego, CA.
- 44. Jenkins, M.A. 2005. Sampling and survey techniques used in long-term vegetation monitoring. Fifth Annual NPS Inventory and Monitoring Program National Meeting, San Diego, CA.

- 45. Jenkins, M.A. 2005. Inventory and monitoring in the National Park Service: the role of geological resource information. Geological Resources in National Parks: Protocol Development Workshop, Western Carolina University, Cullowhee, NC.
- 46. Jenkins, M.A. 2005. How to stratify complex landscapes based upon topography and vegetation. National Park Service Slimemold Workshop, Great Smoky Mountains Institute at Tremont, TN.
- 47. Jenkins, M.A. 2003. Long-term vegetation monitoring at Great Smoky Mountains National Park: What have we learned? Plant Ecology Research Group, University of North Carolina at Chapel Hill.
- 48. Jenkins, M.A. 2003. Vegetation monitoring and ecological research at Great Smoky Mountains National Park. School of Forest Resources and Conservation, University of Florida, Gainesville, FL.
- 49. Jenkins, M.A. 2000. Status of vegetation mapping efforts in Great Smoky Mountains National Park. Discover Life in America, All Taxa Biodiversity Inventory Annual Conference, Gatlinburg, TN.
- 50. Jenkins, M.A. 2000. Great Smoky Mountains National Park, a case study of long-term monitoring in a landscape of limited accessibility. Panel for the Design of Sampling Schemes for Inventory and Monitoring of Biological Resources in National Parks, Fort Collins, CO.

## **Grants and Funding**

- Jenkins, M.A., P.-L. Chagnon, L.D. Farlee. 2019-2021. Understanding and manipulating plantsoil feedbacks to manage the invasive shrub *Lonicera maackii*. *Hardwood Tree Improvement and Regeneration Center*, \$87,050.
- Brooke, J.M., M.A. Jenkins, L.D. Farlee, E.A. Jackson. 2019-2022. Addressing deer impact to forest resources in Indiana, *The Nature Conservancy*, \$30,000.
- Swihart, R.K, J.M. Brooke, J.A. DeWoody, B.G. Dillman, E.A. Flaherty, E.A. Jackson, M.A. Jenkins, Z. Ma. 2018-2022. Integrated deer management in Indiana: an adaptive research framework, *Indiana Department of Natural Resources*, \$1,269,380.
- Jenkins, M.A. 2018-2021. The use of prescribed fire to promote oak species regeneration within silvicultural harvest treatments. *USDA Forest Service-Northern Research Station*, \$55,000.
- Scharf, M.E., M.A. Jenkins, and R. Meilan. 2016-2019. STTR Phase II: Termite-derived enzymatic tree herbicides. *National Science Foundation*, \$248,000 (Purdue portion; \$600,000 total).
- Jenkins, M.A. 2016-2017. Fourteen years of change following eastern hemlock loss the southern Appalachian forests. *National Park Service*, \$6,345.
- Swihart, R., M. Saunders, M. Jenkins, J. Dunning, and J. Holland. 2016-2018. Hardwood Ecosystem Experiment, *Indiana Department of Natural Resources*, \$613,024.
- Fei, S., B. Pijanowski, M. Saunders, L. Lee, K. Gibson, P. Morris, and M. Jenkins. 2013-2018. Graduate training in land use and landscape analysis for sustainable forest and agriculture, *National Institute of Food and Agriculture*, \$ 211,500.00.
- Jenkins, M.A. 2013-2018. Evaluation of site conditions and management techniques to promote oak species regeneration in hardwood forests, *USDA Forest Service-Northern Research Station*. \$45,588.
- Jenkins, M.A. 2016-2017. Assessing changes in forest composition and structure following the loss of eastern hemlock to the hemlock woolly adelgid. *Great Smoky Mountains Conservation Association*, \$2,000.
- Jenkins, M.A. 2013-2017. Deer effects monitoring in Eagle Creek Park, *Eco Logics LLC*, \$10,500.

- Swihart, R., A. Meier, M. Saunders, M. Jenkins, R. Chapman, J. Dunning, and J. Holland. 2014-2015. Hardwood Ecosystem Experiment, *Indiana Department of Natural Resources*, \$580.880.
- Jenkins, M.A. 2011-2015. Carbon sequestration in the Central Hardwood Region: What are the relative contributions of primary and managed secondary forests? *USDA Forest ServiceNorthern Research Station*, \$144,800
- Saunders, MR. and M.A. Jenkins. 2012-2014. Post-doctoral salary support. Hardwood Ecosystem Experiment, *Indiana Department of Natural Resources*, \$19,500.
- Jenkins, M.A. 2011-2014. The response of oak seedling regeneration to harvesting, herbicide treatments, and burning. USDA Forest Service-Northern Research Station, \$105,349
- Swihart, R., M. Saunders, B. Dunning, J. Holland, R. Williams, B. MacGowan, R. Chapman, M. Jenkins, and B. Hoover, 2011-2012. Hardwood Ecosystem Experiment, *Indiana Department of Natural Resources*, \$1,032,144
- Zurn-Birkhimer, S.M., T.R. Filley, T.J. Kroeger, P.G. Welle, and M.A. Jenkins. 2008-2011. Mentoring Native American students for success in geoscience graduate programs, *National Science Foundation*, \$127,665
- Jenkins, M.A. 2007-2009. Are aluminum toxicity and calcium loss impacting high-elevation spruce-fir forests? USDI National Park Service Air Quality-Ecological Effects Program, \$99,684.
- Hilten, J. and M.A. Jenkins. 2005-2006. Twenty years of change in the soil chemistry of high elevation forests in Great Smoky Mountains National Park: 1986-2006. *Alcoa Foundation Community Based Grant Program-Conservation and Stability*, \$10,000.
- Jenkins, M.A. 2004-2005. Thematic accuracy assessment of the vegetation association maps of GSMNP. National Park Service Regional Natural Resources Preservation and Protection Program, NPS Southeast Region, \$32,992.
- Jenkins, M.A. 2004. Has the loss of dogwood affected calcium cycling in forest stands? *Great Smoky Mountains Association*, \$5,000.
- Jenkins, M.A. 2003-2005. Injury scaling of impacts to forest resources following an oil well fire on the Obed Wild and Scenic River, TN. *National Pollution Fund Center*, \$12,879.
- Jenkins, M.A. 2003. Characterization of hemlock stands prior to impacts from the hemlock woolly adelgid (*Adelges tsugae*). *Great Smoky Mountains Association*, \$20,000.
- Holzmueller, E.F., S. Jose, and M.A. Jenkins. 2003. Factors influencing dogwood anthracnose impacts on flowering dogwood (*Cornus florida* L.) in Great Smoky Mountains National Park. *Great Smoky Mountains Conservation Association*, \$3,600.
- Jenkins, M.A. 2002. Age and paleoecology of heath balds in Great Smoky Mountains National Park. NPS Inventory and Monitoring National Program, \$8,400.
- Jenkins, M.A. 2001-2002. Flowering dogwood reproduction and survival in burn areas. *National Park Service Regional Natural Resources Preservation and Protection Program, NPS Southeast Region*, \$48,000.
- Jenkins, M.A. and P.S. White. 2001-2003. Predicting the invasion and survival of the exotic species *Paulownia tomentosa* following burning in pine and oak-pine forests. *Joint Fire Science Program*, \$62,700.
- Jenkins, M.A. and G.R. Parker. 1995. Historic land use in southern Indiana: a GIS approach. *Indiana State Academy of Science*, \$900.
- Parker, G.R. and M.A. Jenkins. 1994-1995. Response of plant communities to human induced disturbance across three ecological landtypes of southern Indiana forests. *USDA Forest Service Research Cooperative Grant*, \$36,719.

## **Membership in Professional Societies**

Association of Southeastern Biologists (2002-present)
Ecological Society of America -Vegetation and Applied Ecology sections (1991-present)

Indiana Academy of Science (2009-present)
International Association for Vegetation Science (2006-present)
Natural Areas Association (1993-present)
Society of American Foresters (1992-present)
Southern Appalachian Botanical Society (1999-present)
Torrey Botanical Society (1996-present)

## TEACHING AND MENTORING

At Purdue, I teach FNR 331 (Forest Ecosystems) and FNR 370 (Summer Practicum - Ecology), an intensive week-long field course in the Upper Peninsula of Michigan, to ~60 undergraduate students annually. I also co-teach two graduate level courses, FNR 536 (Ecology of Disturbance) and FNR 53610 (Ecology of Disturbance Practicum).

## Courses in the Department of Forestry and Natural Resources, Purdue University

- Instructor, Forest Ecosystems (FNR 331; 3 credits) Fall 2008-present. The objective of this course is to build upon students' basic knowledge of ecology by introducing them to the field of forest ecosystem science. Heavy emphasis is placed on integrating class discussions into field-based activities.
- Co-Instructor, International Forestry Summer Camp in Beijing and Changbai Mountain, China. August 2019. Four week lecture-field course taught by instructors from Beijing Forestry University, Purdue University, University of Wisconsin-Stevens Point, and University of Alberta.
- Instructor, Ecology week of summer practicum (FNR 370) 1 of 6 credits. June 2008-2017. The objective of this intensive week-long course is to introduce students to concepts of habitat typing, community disturbance, ecological gradients, plant-animal interactions, wilderness management, and glacial geology.
- Co-Instructor, Ecology of Disturbance (FNR 536) 2 credits. Alternate spring 2009-2017.
  This objective of this graduate level course is to provide students with a sound
  foundation in the concepts and applications of disturbance ecology across multiple
  biomes.
- Co-Instructor, Ecology of Disturbance Practicum (FNR 53610) 1 credits. Alternate spring 2009-2017. The objective of this course is to provide students with an opportunity to apply concepts from class discussions in the field. This intensive weeklong course is taught in Great Smoky Mountains National Park where students observe the effects of community disturbance across the Park and interact with park staff to learn how managers apply disturbance concepts.
- Instructor (sabbatical replacement), Forest Ecosystems (2 credits) Fall 1997
- Instructor, Response of Plant Communities to Human Disturbance (FNR 598; 5 week course), 1996. This course was taught while a Ph.D. student.

### **Graduate Student Advising and Mentoring**

#### **Current Graduate Students**

**Jameson Pierce (MS)** - Influence of landscape context on the consumption of invasive plants by white-tailed deer. Jameson is supported by funds from the Department of Forestry and Natural Resources, Purdue University and started in fall 2018 and is co-advised by Dr. Elizabeth Flaherty.

**Sarah Rademacher (MS)** - Use of prescribed fire and overstory manipulation to regenerate *Quercus* species. Sarah is supported by funds from the USDA Forest Service and the Department of Forestry and Natural Resources. She started in fall 2019.

**Benjamin Rivera (MS)** - Control and ecological effects of *Lonicera maackii* in mixed hardwood forests. Ben is supported by funds from the Department of Forestry and Natural Resources and the National Science Foundation. He started in fall 2019 and is co-advised by Dr. Richard Meilan.

**Richard Sample (PhD)** - Statewide metrics to track the effects of deer herbivory. Richard is supported by funding from Indiana Department of Natural Resources and started in fall 2018.

#### Former Graduate Students

**Meghan Mulroy (MS, 2018)** Forest ecosystem response to hemlock woolly adelgid ( *Adelges tsugae*) in the Southern Appalachian Mountains. Currently community forester, Virginia Department of Forestry

**Graham Frank (MS, 2017)** - Above- and below-ground community response to removal of the invasive shrub *Lonicera maackii*. Currently PhD student, Oregon State University. **Kalli Dunn (MS, 2017)** - Dispersal and establishment of *Pyrus calleryana* in a central hardwood forest. Currently, assistant property manager, Glendale Fish and Wildlife Area, Indiana Department of Natural Resources.

**Robert Quackenbush (MS, 2016)** - Oak regeneration and fuel loading responses to forest management. Currently forester, Arkansas Forestry Commission.

Charlotte Freeman (MS, 2015) - Interactions between the removal of non-native shrubs and deer herbivory in hardwood forests. Currently coordinator, Hardwood Ecosystem Experiment, Department of Forestry and Natural Resources, Purdue.

**Patrick Duffy (MS, 2014)** - The effects of historic non-native pine plantations on native vegetation and edaphic characteristics. Currently field supervisor, Cardno, Inc., West Olive, MI.

Christy Lowney (MS, 2013) - A decade of change in old-growth forests of the Central Hardwood Forest Region. Currently research specialist, University of Wisconsin-Madison Arboretum.

Robert Morrissey (PhD, 2013) - Long-term dynamics of managed and unmanaged hardwood forests. Currently post-doctoral researcher, Czech University of Life Sciences, Prague. Joshua Shields (PhD, 2013) - Spatial and temporal patterns of species invasion: effects of lag phases, residence time, and abundance on ecosystem diversity, structure, and function.

Currently outreach and extension forester, Manistee Conservation District, MI.

**J. Travis Swain (MS, 2013)** - Long-term change in post-harvest hardwood forests of southern Indiana. Currently silviculturist, Hoosier National Forest, Tell City, IN.

**Lindsay Jenkins (MS, 2011)** - Response of forest vegetation communities to over a decade of deer population reductions in Indiana state parks. Currently grants and contracts administrator, East Tennessee State University, Johnson City.

Amanda Parks (MS, 2011) - Population genetics, recruitment history, and survivorship of *Juglans cinerea* in the southern Appalachian Mountains. Currently biometrician, Pennsylvania Department of Natural Resources.

### **Current Committee Appointments**

Jonathan Knott (PhD, FNR), Brandon Quinby (PhD, FNR), Steven Russell (PhD, BTNY), Geoffrey Williams (PhD, FNR), Caleb Redick (MS, FNR)

#### **Past Committee Appointments**

Mysha Clarke, (PhD, 2018, FNR), Laura Ploughe (PhD, 2018, BIOL), Laura D'Acunto (PhD, 2018, FNR)

Zachary Reaver (MS, 2018, FNR), James Jacobs (PhD, 2017, FNR), Jennifer Lesko (MS, 2017, FNR)

Paola Olaya-Arenas (PhD, 2016, ENT), Johanna Desprez (MS, 2015, FNR), Mike Schuster (PhD,

#### 2015, FNR)

Ethan Belair (MS, 2014, FNR), Jamie Herold (MS, 2013, FNR), Jami MacNeil (MS, 2011, FNR), Brian Bailey (MS, 2011, FNR), Ty Boyd (MS, 2011, BIOL), Patricia Quackenbush (MS, 2011, BTNY), Sarah Stehn (MS, 2009, Michigan Technological University), Windy Bunn (MS, 2008, University of Tennessee), Jennifer Murrow (PhD, 2007, University of Tennessee), Dane Kuppinger (PhD, 2007, University of North Carolina at Chapel Hill), R. Todd Jobe (PhD, 2006, University of North Carolina at Chapel Hill), Eric Holzmueller (PhD, 2006, University of Florida), Mark Webb (MS, 2005, Clemson University), David Vandermast (PhD, 2005, University of North Carolina at Chapel Hill)

#### Post-doctoral Advisees

Bryan Murray (PhD 2013, Michigan Technological University) 2014-2016; Area of research: functional diversity and resilience across multiple trophic levels; Current position: Assistant Professor of Forest Ecology and GIS, Oklahoma State University.

## **Undergraduate Student Mentoring**

Shannon Berry (ECE, 2017, VIP student), Ehren Marschall (ECE, 2016-2017 VIP student), Achinthya Soordelua (CS, 2016-2017 VIP student), Lucas Voorhees (FNR, 2017) field technician, Adam George (Michigan State University, 2017) field technician, Joe Littike (FNR, 2014-2016) undergraduate researcher, Kali Dunn (FNR, 2013-2015) lab technician, started as M.S. student in fall 2015, Michelle McKee (Indiana University, 2013) field technician, Andrew Muehleisen (Ohio State University, 2013) field technician, Samuel Tourtellot (Michigan State University, 2013) field technician, Charlie Jackson (University of Dayton, 2011) field technician, Michael Rayburn (FNR, 2012), field technician, Kyle Leffel (FNR, 2010-1012) field technician, Robert Quackenbush (FNR, 2010-2013) field technician, started as a M.S. student advisee in summer 2013, Thomas Rowe (FNR, 2010-2011), field technician

## Other Mentoring Activities

**Vertically Integrated Project (VIP), (2016-2017).** I co-mentored students from ECE and CS whose project used images posted to social media platforms to track changes in the phenology of forest plant communities in national parks.

**GEMs (Geology, Environmental Science, and Meteorology) Scholar Program**, (2008-2010). This was an interdisciplinary joint program between Purdue University, Bemidji State University and two tribal colleges in Minnesota (Red Lake Tribal College and Leech Lake Tribal College). The objective of this program was to expose Native students to ecological research and management issues on tribal lands.

Intern supervision and mentoring, National Park Service, (1998-2008). I trained and mentored 33 undergraduate students during 10 years with the NPS. These students received hands-on training in field-based research, but were also taught basic concepts of forest ecology, land navigation, dendrology, and forest stand dynamics. Many of these students went on to complete graduate degrees and/or find employment with state and federal agencies.

## **ENGAGEMENT AND SERVICE**

## Invited outreach presentations

- 1. Jenkins, M.A. 2019. The secret life of the forest understory. Keynote speaker, Woodland Owners Annual Award Banquet, Sycamore Trails Resource Conservation and Development Council, Center Point, IN.
- 2. Jenkins, M.A. 2018. Deer and invasive plant dynamics in hardwood forests. Indiana Society of American Foresters Forest Pesticide Training Program, Danville, IN.

- 3. Jenkins, M.A. 2018. Deer, functional diversity, and the history of Indiana forests. Hardwood Ecosystem Experiment State Legislator Tour, Yellowwood State Forest, Martinsville, IN.
- 4. Jenkins, M.A. 2017. Mechanisms and effects of invasion by non-native plants: implications for management of non-crop lands. Plenary speaker, National Railroad Contractors Association Weed Control Seminar, Indianapolis, IN.
- 5. Jenkins, M.A. 2017. More than corn: a brief history of Indiana forests. Historic Hoosier Hills RC&D Woodlands Committee meeting, Oldenburg, IN.
- 6. Jenkins, M.A. 2017. The biodiversity of Indiana forests: what are the threats and will it last? West Central Indiana Native Plant and Wildlife Society. West Lafayette, IN.
- 7. Jenkins, M.A. 2017. Recent research in the Davis old-growth forest. Davis Purdue Agricultural Center Field Day: Celebrating 100 years. Davis Purdue Agricultural Center, Farmland, IN.
- 8. Jenkins, M.A. 2017. White-tailed deer as a driver of change in forests. Walnut Council Annual Meeting. Lafayette, IN.
- 9. Jenkins, M.A. 2017. The challenges of deer and invasive plants in managing Indiana forests. North Central Section of The Wildlife Society Student Conclave. Brookston, IN.
- 10. Jenkins, M.A. 2017. Invasive species: mechanisms of spread and ecological effects. Soil and Water Conservation Society-Student Chapter, Purdue University, West Lafayette, IN.
- 11. Jenkins, M.A. 2017. What are invasive species? Featured segment in the second live broadcast of The Green Machine episode of ZipTrips, multimedia production of Purdue University, West Lafayette, IN.
- 12. Jenkins, M.A. 2016. When good plants go bad: the mystery of invasive species. Wednesday in the Wild, Lilly Nature Center/Celery Bog Nature Area, West Lafayette, IN.
- 13. Jenkins, M.A. 2015. Successful oak regeneration: why is there so much oak forest and how can we keep it? Indiana Forestry & Woodland Owners Association Annual Meeting, Jasper, Indiana.
- 14. Jenkins, M.A. 2015. What are invasive species? Featured segment in *The Green Machine* episode of ZipTrips, multimedia production of Purdue University, West Lafayette, Indiana.
- 15. Jenkins, M.A. 2014. The story behind the scenery in Great Smoky Mountains National Park. Mary L. Matthews Club, Lafayette, IN.
- 16. Jenkins, M.A. 2014. Community response to Asian bush honeysuckle removal. 2014 Invasive Species Management Continuing Education Workshop, West Lafayette, IN.
- 17. Jenkins, M.A. 2014. Saving all the pieces: protecting the flora and fauna of Great Smoky Mountains National Park. Road Scholars Program, Purdue University.
- 18. Jenkins, M.A. 2014. A history Indiana forests from glaciation to the present day. Keynote speaker, Woodland Owners Annual Award Banquet, Sycamore Trails Resource Conservation and Development Council, Brazil, IN.
- 19. Jenkins, M.A. 2014. An update on threats to the diversity of Indiana forests. Indiana Native Plant and Wildflower Society West Central Chapter, Lilly Nature Center/Celery Bog Nature Area, West Lafayette, IN.
- 20. Jenkins, M.A. 2013. Ecological Ethics Forum. Sycamore Audubon Society, Lilly Nature Center/Celery Bog Nature Area, West Lafayette, IN.
- 20. Jenkins, M.A. 2013. Preserving the native diversity of a national treasure: Great Smoky Mountains National Park. Sycamore Audubon Society, Lilly Nature Center/Celery Bog Nature Area, West Lafavette. IN.
- 21. Jenkins, M.A. 2011. Ecosystems. Master Naturalist Program, John S. Wright Center, West Lafayette, IN.

- 22. Jenkins, M.A. 2011. What could possibly go wrong? The mechanisms and ecological effects of invasion by exotic plants. Wednesday in the Wild, Lilly Nature Center/Celery Bog Nature Area, West Lafayette, IN.
- 23. Jenkins, M.A. 2011. Saving all the pieces: biodiversity and conservation in Great Smoky Mountains National Park. Keynote speaker, Woodland Owners Annual Award Banquet, Sycamore Trails Resource Conservation and Development Council, Brazil, IN.
- 24. Jenkins, M.A. 2010. Ten years in grey and green. Student Chapter of the Wildlife Society, Purdue University, West Lafayette, IN.
- 25. Jenkins, M.A. 2010. Understanding invasion and establishment of plant pests and the implications for ecosystems. Invasive Plant Management Field Day: 2010, John S. Wright Center, West Lafayette, IN.
- 26. Jenkins, M.A. 2009. Ecological effects of invasive plants. Invasive Plant Management Field Day: 2009, John S. Wright Center, West Lafayette, IN.
- 27. Jenkins, M.A. 2009. Woodland wildflowers: identification and life history. Ohio River Valley Woodland and Wildlife Workshop, Cincinnati, OH.

### Extension/outreach publications

- 1. Jenkins, M.A. 2017. Ecological effects of white-tailed deer in hardwood forests. Indiana Woodland Steward, summer issue, Department of Forestry and Natural Resources, Purdue University.
- 2. Dunn, K.A., M.R. Saunders, and M.A. Jenkins. 2017. Callery pear, friend or foe? Indiana Woodland Steward spring issue, Department of Forestry and Natural Resources, Purdue University.
- 3. Morrissey, R.C., M.A. Jenkins, and M.R. Saunders. 2011. Exploring our forests' histories to build a better future. Hardwood Tree Improvement and Regeneration Center Newsletter. HTIRC, Department of Forestry and Natural Resources, Purdue University. Retrieved from <a href="http://www.agriculture.purdue.edu/fnr/HTIRC/newsletter/2011/April.html">http://www.agriculture.purdue.edu/fnr/HTIRC/newsletter/2011/April.html</a>.

#### Media Coverage

- 2018: Hartford City News Times (Indiana)
- 2017: Star Press (Muncie, IN), Lafayette Journal and Courier (2), AP, Ignis Newsletter of the Oak Woodlands and Forests Fire Consortium
- 2016: Local TV news interview, Jilin Province, China
- 2015: The Exponent (Purdue student newspaper)
- 2014: The Sportsman Channel News (nationwide broadcast), The Indianapolis Star, WTHR (Indianapolis NBC affiliate), The Associated Press (2), The E-Forester (published by Society of American Foresters), Indiana Public Media (NPR), Nature World News
- 2011: On Earth Magazine (published by the Natural Resources Defense Council)
- 2010: Knoxville News Sentinel (featured the research of former Purdue advisee Amanda Parks and her outreach activities with middle school students), AP, Treehugger.com
- 2009: The Los Angeles Times, The Indian Express (national print and web-format newspaper based in New Delhi with a readership of over 19 million)
- 2008: Sierra Scene (published by the Tennessee state chapter of the Sierra Club)
- 2007: Timber Talk (regional radio program)
- 2006: The Daily Times (Maryville, TN)
- 2005: Knoxville News Sentinel, Southeastern Outdoors, NPR, AP
- 2004: The Mountain Press (Sevierville, TN)
- 2003: University of Georgia Research Magazine, The Forestry Source, Smoky Mountain News (Waynesville, NC), NPR

2002: Knoxville News Sentinel

2001: The New York Times, Newsday, news section of the journal Nature, AP, UPI,

Environment

**News Service** 

## **Service to Purdue** *Department*

- Faculty Advisor, Student Chapter of the Society of American Foresters (2011-2015; 2017-present)
- FNR 372 (Summer Practicum) Revision Task Team
- Forestry Curriculum Revision Task Team (member, 2017-2018)
- Woodlands Committee (member, 2017-present)
- Awards Committee (member, 2014-present)
- Graduate Committee (member, 2009-present); Student Awards Subcommittee (2015-present)
- Budget and Steering Committee (member, 2011-2014)
- Mentoring committees: Elin Jacobs (2019-present), Mo Zhou (2018-present; convener 2019), Jason Hoverman (2016-2019), Courtney Mycroft (2017-present), Elizabeth Flaherty (2016-present); Mitchell Zischke (2014-2017; convener 2014); Rod Williams (2013-2014); Shaneka Lawson (2012-2013); Jim Beasley (2011-2012)
- Faculty Search Committee, Wildlife Ecology and Management (2012)

#### College

Grade Appeals Committee (member, 2011-2013)

## University

Graduate Council (2014-2017)

## Service to Professional and Scientific Organizations

- Co-organizer, Ecological Society of America organized oral session: Saving the Critical Pieces: Maintaining the Resilience and Function of Forests in the Face of Change (2019)
- Guest editor, special issue on natural regeneration in mixed hardwood forest, *Forests* (2018-2019)
- Board of editors, *PeerJ* (2017-Present)
- Associate editor, *Natural Areas Journal* (2011-Present)
- Guest associate editor of *Forest Science* (2012 North American Forest Ecology Workshop special issue)
- Planning committee and session organizer for 2013 North American Forest Ecology Workshop
- Co-chair of the 2004 Southern Appalachian Man and the Biosphere Conference, Gatlinburg, TN
- Planning committee for the 25th Annual Central States Forest Soils Tour (2008)
- Appalachian Highlands Network Science and Technical Advisory Committee (2000-2008)
- Appalachian Highlands and Cumberland/Piedmont Networks Inventory Design Team (1999-2000)
- Appalachian Trail Environmental Monitoring Program Vegetation Working Group (2005-2008)
- Eastern Parks and Networks Forest Vegetation Monitoring Working Group (2005-2008)

- Technical reviewer for *Ranger Rick* books for children series: *Habitats and Ecosystems* published by Newbridge Educational Publishing, New York *Reviewed proposals for*:
- National Science Foundation (Ad hoc)
- Leopold Center for Sustainable Agriculture (Ad hoc)
- German-Israeli Foundation, Young Scientists Program (Ad hoc)
- Hatch and McIntire-Stennis Programs, Oklahoma State University, University of New Hampshire, and Southern Illinois University (Ad hoc)
- USDI-NPS Southeast Region, National Resource Preservation Program Natural Resource Management (panel 2007-2008)
- USDI-NPS Appalachian Highlands Science Learning Center Research Grant Program (panel 2007)
- Joint Fire Science Program (panel 2000 and 2005)

## Served as scientific reviewer for:

<u>Journals</u> (82 manuscripts for 43 journals)

American Journal of Botany, American Midland Naturalist, Annals of Forest Science, Applied Vegetation Science, Australian Forestry, Australian Journal of Botany, Biological Invasions, Canadian Journal of Forest Research, Castanea, Conservation Biology, Ecological Applications, Ecological Complexity, Ecological Monographs, Ecological Processes, Ecological Restoration, Ecology, Ecosphere, Forest Ecology and Management, Forests, Forest Science, Journal of Ecology, Journal of Forestry, Journal of Terrestrial Observation, Journal of the Torrey Botanical Society, Journal of Vegetation Science, Landscape Ecology, Native Plants Journal, Natural Areas Journal, New Forests, Nordic Journal of Botany, Northern Journal of Applied Forestry, Northeastern Naturalist, Oecologia, Oikos, PeerJ, Plant Ecology, PLoS ONE, Population Ecology, Proceedings of the Indiana Academy of Science, Rhodora, Southeastern Naturalist, Trees - Structure and Function, Urban Ecosystems Book Chapters

- CRC Press/Taylor and Francis (Invasive plants and forest ecosystems)
- Springer (Sustaining young forest communities ecology and management of early successional habitat in the US Central Hardwood Region) Refereed Proceedings and General Technical Reports
- Central Hardwoods Ecosystem Vulnerability Assessment and Synthesis: A Report from the Central Hardwoods Climate Change Response Framework Project (2014) USDA Forest Service General Technical Report NRS-124
- Fourth Fire in Eastern Oak Forests Conference (2011)

## Reviewed National Park Service monitoring protocols:

- NPS Appalachian Highlands Inventory and Monitoring Network: exploited plants of rich coves (2018)
- Appalachian Highland Inventory and Monitoring Network: rare habitat and poached species (2014).
- Appalachian Highlands Inventory and Monitoring Network: exploited plant species Galax urceolata (2013)
- Appalachian National Scenic Trial: forest monitoring mega-transect (2013)
- Appalachian Highlands Inventory and Monitoring Network: cobble bar vegetation (2012)
- Shenandoah National Park: vegetation monitoring (2011)
- Klamath Inventory and Monitoring Network: Vital Signs (multi-discipline; 2010)
- Northeast Temperate Inventory and Monitoring Network: vegetation monitoring (2009)

# **Public service**

- Board member, Niches Land Trust, 2016-present; chair of governance committee, 2019-
- Expert witness for the City of Indianapolis in lawsuit opposing deer population control in Eagle Creek Park 2015
- Member, West Lafayette Tree Friends Board, 2014-2015
- Member, Northwestern Heights Neighborhood Urban Forest Committee, 2010-2012