

SUMMARY CURRICULUM VITAE

[L. Katherine Kirkman, Ph.D.](#)

Scientist



Dr. Kirkman's current research is focused on plant ecology and conservation management of the longleaf pine ecosystem and embedded wetlands. Her specific interests include vegetation dynamics in response to disturbance, restoration of species diversity of the native ground cover, and conservation biology of rare plant species. She is involved in related education and outreach efforts through a cooperative outreach

project for private landowners, agency land managers, and commercial interests. This partnership is designed to stimulate supply and demand of native plant seed for restoration as well as demonstration of restoration practices.

Education:

PhD in Botany, University of Georgia, Athens, GA, 1992

MS in Botany, University of Georgia, Athens, GA, 1978

BS in Biology, College of William and Mary, Williamsburg, VA, 1976

Professional Experience:

2012-present: Scientist, Joseph W. Jones Ecological Research Center

1999-2011: Associate Scientist, Joseph W. Jones Ecological Research Center

1995-1999: Assistant Scientist, Joseph W. Jones Ecological Research Center

1992-1995: Adjunct Ecologist, Institute of Ecology, University of Georgia,
(position located at J. W. Jones Ecological Research Center)

Adjunct Faculty Appointments:

Adjunct Faculty, Department of Botany, University of Florida, Gainesville, FL

Adjunct Faculty, Department of Wildlife and Conservation, University of Florida,
Gainesville, FL

Affiliate Faculty, School of Forestry, Auburn University, Auburn University, AL

Affiliate Faculty, Dept. of Biological Sciences, Auburn University, Auburn
University, AL

Courtesy Graduate Faculty, University of Georgia Institute of Ecology, Athens,
GA

Professional Affiliations:

The Ecological Society of America
Society of Wetland Scientists
Association of Southeastern Biologists

Recent Research Publications: (Past 7 years):

Creech, M. N., L. K. Kirkman, and L. A. Morris. (In Press). Alteration and recovery of slash pile burn sites in the restoration of fire-maintained ecosystem. *Restoration Ecology*. DOI: 10.1111/j.1526-100x.2011.00780.x.

Edwards, L., J. Ambrose, and L. K. Kirkman. (In Press). *Natural Communities in Georgia*. University of Georgia Press, Athens, Georgia.

Iacona, G., L. K. Kirkman, and E. Bruna. (In revision). Experimental test for facilitation of seedling recruitment by the dominant bunchgrass in a fire-maintained savanna. *PLOS 1*.

Kirkman, L. K., L. L. Smith, and S. W. Golladay. (In Press). Southeastern depressional wetlands. In D. Batzer, and A. Baldwin (eds.). *Wetland Habitats of North America: Ecology and Conservation Concerns*. University of California Press.

Martin, G., L. K. Kirkman, and J. Hepinstall-Cymerman. (Revision in review). Six decades (1948-2007) of landscape change in the Dougherty Plain of southwest Georgia, USA. *Southeastern Geographer*.

Kirkman, L. K., L. L. Smith, P. F. Quintana-Ascencio, M. J. Kaeser, S. W. Golladay, and A. L. Farmer. 2012. Is species richness congruent among taxa? Surrogacy, complementarity and environmental correlates among three disparate taxa in geographically isolated wetlands. *Ecological Indicators* 18:131-139.

Martin, G. I., L. K. Kirkman, and J. Hepinstall-Cymerman. 2012. Mapping geographically isolated wetlands in the Dougherty Plain, Georgia, USA. *Wetlands* 32:149–160.

Kirkman, L. K., E. A. Whitehead, S. W. Golladay, L. L. Smith, and S. P. Opsahl. 2011. A research framework for identifying potential linkages between isolated wetlands and disease ecology. *Ecological Research* 26:875-883.

Stuble, K., L. K. Kirkman, and C. R. Carroll, and N. J. Sanders. 2011. Relative effects of disturbance on red imported fire ants and native ant species in a longleaf pine ecosystem. *Conservation Biology* 25:618-622.

- Iacona, G. W., L. K. Kirkman, and E. M. Bruna. 2010. Effects of resource availability on seedling recruitment in a fire-maintained savanna. *Oecologia* 163:171-180.
- Kaesler, M., and L. K. Kirkman. 2010. The effects of pre- and post-emergent herbicides on non-target native plant species of the longleaf pine ecosystem. *Journal of the Torrey Botanical Society* 137:420-430.
- Stuble, K., L. K. Kirkman, and C. R. Carroll. 2010. Are red imported fire ants facilitators of native seed dispersal? *Biological Invasions* 12:1661-1669.
- Kaesler, M. J., and L. K. Kirkman. 2009. Estimating total plant species richness in depressional wetlands in the longleaf pine ecosystem. *Wetlands* 29:866-874.
- Martin, K. L., and L. K. Kirkman. 2009. Management of ecological thresholds to re-establish disturbance-maintained herbaceous wetlands of the south-eastern USA. *Journal of Applied Ecology* 46:906-914.
- Mitchell, R., T. Engstrom, R. R. Sharitz, D. De Steven, K. Hiers, R. Cooper, and L. K. Kirkman. 2009. Old forests and endangered woodpeckers: old-growth in the southern Coastal Plain. *Natural Areas Journal* 29:301-310.
- Stuble, K., and L. K. Kirkman, and C. R. Carroll. 2009. Patterns of abundance of fire ants and native ants in a native ecosystem. *Ecological Entomology* 34:520-526.
- Kirkman, L. K., C. L. Brown, and D. Leopold. 2007. *Native Trees of the Southeast*. Timber Press, Portland, Oregon.
- Kirkman, L. K., R. J. Mitchell, M. J. Kaesler, S. D. Pecot, and K. L. Coffey. 2007. The perpetual forest: using undesirable species to bridge restoration. *Journal of Applied Ecology* 44:604-614.
- Coffey, K. L., and L. K. Kirkman. 2006. [Seed germination strategies of species with restoration potential in a fire-maintained pine savanna](#). *Natural Areas Journal* 26:289-299.
- Kirkman, L. K., and R. J. Mitchell. 2006. Conservation management of *Pinus palustris* ecosystems from a landscape perspective. *Applied Vegetation Science* 9:67-74.
- Aleric, K. M., and L. K. Kirkman. 2005. [Growth and photosynthetic responses of the federally endangered shrub, *Lindera melissifolia* \(Lauraceae\), to varied light environments](#). *American Journal of Botany* 92:682-689.

Outreach publications and Report to Natural Resource Agencies: (Past 7 years)

- Kaesler, M. J., and L. K. Kirkman. 2010. Field and Restoration Guide to Common Native Warm-Season Grasses of the Longleaf Pine Ecosystem. In house publication for education and outreach.
- Norden, H., and K. Kirkman. 2006. Field Guide to Common Legume Species of the Longleaf Pine Ecosystem. Published by the National Fish and Wildlife Foundation and the Georgia Native Plant Society.
- Mitchell, R. J., J. K. Hiers, R. T. Engstrom, L. K. Kirkman, J. Hill, R. T. Sharitz, and R. Cooper. 2006. Report to the National Council of Science and Sustainable Forestry on Old-Growth Forests and Conservation of Biodiversity of the Southeast.
- Kirkman, K. 2005. [Conserving biodiversity in the longleaf pine savannas of the USA.](#) Plant Talk 35:30-32.

Current Jones Center Research:

- Kirkman, L. K., S. W. Golladay, L. L. Smith, S. P. Opsahl, and D. W. Hicks. Depressional wetlands in the coastal plain landscape: maintenance of regional biological diversity.
- Mitchell, R. J., S. B. Jack, R. K. McIntyre, L. K. Kirkman, L. L. Smith, and L. M. Conner. Ecological forestry project: Silviculture that sustains and restores native biodiversity of pinelands in the Southeastern Coastal Plain: legacies, fire and recovery periods.
- Mitchell, R. J., L. K. Kirkman, L. R. Boring, and L. M. Conner. Productivity and biodiversity patterns: Controls in a southeastern coastal plain landscape (the forest productivity project).

Grants and Contracts (Past 5 years):

- Kirkman, L. K., L. M. Conner, and R. K. McIntyre. Longleaf pine ecosystem conservation III. National Fish and Wildlife Foundation. September 1, 2007 – December 31, 2012. \$196,500. Did not receive any funds in 2011.
- Kirkman, L. K., R. K. McIntyre, and L. M. Conner. Enhancing longleaf ecosystem understory. National Fish and Wildlife Foundation. October 31, 2007–June 31, 2011. \$82,000. Received in 2008, \$923. Received in 2011, \$19,921.

Mitchell, R. J., L. K. Kirkman, L. M. Conner, L. L. Smith, J. Priddy, P. Yates, M. C. Mack, J. R. Walters, and R. D. Sutter. Developing dynamic reference models and a decision support framework for southeastern ecosystems: An integrated approach. Strategic Environmental Research and Development Program. March 26, 2009–March 25, 2014. \$1,351,138. Received in 2011, \$344,888.

Kirkman, L. K., and K. McIntyre. Longleaf pine understory restoration IV. National Fish and Wildlife Foundation. Budget: \$95,678. 2008-2010.

Kirkman, L. K. Longleaf pine understory restoration II. National Fish and Wildlife Foundation. Budget: \$85,355. 2005-2007.

Recent Student Advisement:

Stribling Stuber. Current. Odum School of Ecology, University of Georgia, Athens, Georgia. Assessing the relationship between land use and macrophyte communities in isolated wetlands in the Dougherty Plain, Georgia: A multi-scale approach. MS Thesis. (Co-advisor with Jeff Hepinstall-Cymerman).

Margaret Shearin. 2011. Odum School of Ecology, University of Georgia, Athens, Georgia. The direct and indirect effects of the red imported fire ant (*Solenopsis invicta*) on seed fate in the longleaf pine ecosystem. MS Thesis. (Co-advisor with Ron Carroll).

Scott Wiggers. 2011. Department of Biological Sciences, Auburn University, Auburn, Alabama. Some like it hot: fire and legume germination in the longleaf pine ecosystem. MS Thesis. (Co-advisor with R. Boyd).

Glenn Martin. 2010. Warnell School of Forestry and Natural Resources, University of Georgia, Athens, Georgia. Evaluating the location, extent, and condition of isolated wetlands in the Dougherty Plain, Georgia, USA. MS Thesis. (Co-advisor with Jeff Heppinstall).

Michelle Creech. 2009. Institute of Ecology, University of Georgia, Athens, Georgia. Revegetation potential of slash pile burn sites in the longleaf pine ecosystem. MS Thesis. (Co-advisor with Ron Carroll).

Gwen Iacona. 2008. Department of Wildlife and Conservation, University of Florida, Gainesville, Florida. Seedling recruitment as a driver of species richness in the understory of the longleaf pine savanna. MS Thesis. (Co-advisor with E. Bruna).

- Katie Stuble. 2008. Institute of Ecology, University of Georgia, Athens, Georgia.
Impacts of fire ant invasion on seed dispersal and ant community composition in the longleaf pine ecosystem. MS Thesis. (Co-advisor with R. Carroll).
- Katie Martin. 2006. Institute of Ecology, University of Georgia, Athens, Georgia.
Restoration of fire-dependent depression wetlands. MS Thesis. (Co-advisor with Ron Carroll).
- Katherine Aleric. 2004. Institute of Ecology, University of Georgia, Athens, Georgia.
Responses to varied light environments and propagation techniques of the federally endangered shrub, *Lindera melissifolia* (Lauraceae). MS Thesis. (Co-advisor with L Donovan).
- Heather Norden. 2002. Institute of Ecology, University of Georgia, Athens, Georgia.
Species biology and life history of the federally endangered *Schwalbea americana* L. (Scrophulariaceae). MS Thesis. (Co-advisor with R. Carroll).
- Maureen Mulligan. 2000. Institute of Ecology, University of Georgia, Athens, Georgia.
Wiregrass (*Aristida beyrichiana* Trin and Rupr.) recruitment, establishment, and growth. MS Thesis. (Co-advisor with Ron Carroll).