

## SUMMARY CURRICULUM VITAE

### L. Katherine Kirkman

Associate 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:

1999-present: 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 5 years):

- Martin, K. L., and L. K. Kirkman. (In press). Management of ecological thresholds to re-establish disturbance-maintained herbaceous wetlands of the southeastern USA. *Journal of Applied Ecology*.
- Stuble, K., and L. K. Kirkman and C.R. Carroll. (In press). Patterns of abundance of native ants and fire ant. *Ecological Entomology*.
- Mitchell, R., T. Engstrom, R. R. Sharitz, D. De Steven, K. Hiers, R. Cooper, and L. K. Kirkman. (In press). Old forests and endangered woodpeckers: old-growth in the southern Coastal Plain. *Natural Areas Journal*.
- Kaesler, M. J., and L. K. Kirkman (In press). Estimating total plant species richness in seasonally inundated depressional wetlands in the longleaf pine ecosystem. *Wetlands*.
- 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.
- Kirkman, L. K., K. L. Coffey, R. J. Mitchell, and E. B. Moser. 2004. Ground cover recovery patterns and life-history traits: implications for restoration obstacles and opportunities in a species-rich savanna. *Journal of Ecology* 92:409-421.
- Kirkman, L. K., P. C. Goebel, B. J. Palik, and L. West. 2004. Predicting plant species diversity in a longleaf pine landscape. *Ecoscience* 11:80-93.

Norden, A. H., and L. K. Kirkman. 2004. Factors controlling the fire-induced flowering response of *Schwalbea americana* L. (Scrophulariaceae). *Journal of the Torrey Botanical Society* 131:16-22.

Norden, A. H., and L. K. Kirkman. 2004. [Persistence and prolonged winter dormancy of the \*Schwalbea americana\* L. \(Scrophulariaceae\) following experimental management techniques.](#) *Natural Areas Journal* 24:129-134.

Norden, A. H., and L. K. Kirkman. 2004. [Herbivory of the federally endangered \*Schwalbea americana\*.](#) *Castanea* 69:67-68.

Mulligan, M. K., and L. K. Kirkman. 2002. Burning influences on wiregrass (*Aristida beyrichiana*) restoration plantings: natural seedling recruitment and survival. *Restoration Ecology* 10:334-339.

Mulligan, M. K., and L. K. Kirkman. 2002. Competition effects on wiregrass (*Aristida beyrichiana*) growth and survival. *Plant Ecology* 167:39-50.

Mulligan, M. K., L. K. Kirkman, and R. J. Mitchell. 2002. *Aristida beyrichiana* (wiregrass) establishment and recruitment: implications for restoration. *Restoration Ecology* 10:68-76.

Kirkman, L. K., R. J. Mitchell, R. C. Helton, and M. B. Drew. 2001. [Productivity and species richness across an environmental gradient in a fire-dependent ecosystem.](#) *American Journal of Botany* 88:2119-2128.

Kirkman, L. K., P. C. Goebel, L. West, M. B. Drew, and B. J. Palik. 2000. Depressional wetland vegetation types: a question of plant community development. *Wetlands* 20:373-385.

#### Outreach publications and Report to Natural Resource Agencies: (Past 5 years)

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.

Coffey, K. L., and L. K. Kirkman. 2004. Native ground covers partners: reestablishing native ground cover in longleaf pine savannas (Georgia). *Ecological Restoration* 22:288-289.

Kirkman, L. K., and R. J. Mitchell. 2002. A forest gap approach to restoring longleaf pine-wiregrass ecosystems (Georgia and Florida). *Ecological Restoration* 20:50-51.

Engstrom, T., L. K. Kirkman, and R. J. Mitchell. 2001. Natural History of the Fire Forest - the Longleaf Pine-wiregrass Ecosystem. Pages 5-18 In: *The Fire Forest - the Longleaf Pine-wiregrass Ecosystem*, Georgia Wildlife Federation.

Current Jones Center Research:

Depressional wetlands in the Coastal Plain Landscape

Productivity and Biodiversity Patterns: Controls in a Southeastern Coastal Plain Landscape

Silviculture that Sustains and Restores Native Biodiversity of Pinelands in the Southeastern Coastal Plain: Legacies, Fire and Recovery Periods.

Grants and Contracts (Past 5 years):

K. Hiers, R. Mitchell, K. Kirkman, M. Conner, and L. Smith. Developing dynamic reference models and a decision support framework for longleaf sanhill ecosystem: an integrated approach. Strategic Environmental Research and Development Program (SERDP). Budget: \$1,351,0000. 2009-2014.

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

Kirkman, L. K., and L. M. Conner. Longleaf pine understory restoration III. National Fish and Wildlife Foundation. Budget: \$196,000. 2007-2010.

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

Kirkman, L. K. Longleaf pine understory restoration I. National Fish and Wildlife Foundation. Budget: \$50,000. 2003-2005.

Smith, L. L., and L. K. Kirkman. Coastal plain ecosystems – Ecology and conservation management. Georgia Department of Natural Resources – Nongame Wildlife & Natural Heritage Section. Budget: \$1008. 2005.

Mitchell, R. J., L. K. Kirkman, L. Smith, R. T. Engstrom, J. F. Franklin, B. J. Palik, and M. L. Hunter. Use of Natural Disturbances to guide restoration silviculture. National commission on science for sustainable forestry (NCSSF). Budget: \$ 124,394 to Jones Center (total grant = \$199,438). 2002-2003.

Recent Student Advisement:

Michelle Creech. Current. Physical, chemical and biological impacts of slash pile burns on ground cover restoration of the longleaf pine ecosystem. MS Thesis. Institute of Ecology, University of Georgia, Athens, Georgia. (Co-advisor with Ron Carroll).

Glenn Martin. Current. Environmental history, disturbance trajectory and current condition of isolated, depression wetlands in the Dougherty Plain, Georgia. Warnell School of Forestry and Natural Resources, University of Georgia, Athens, Georgia. (Co-advisor with Jeff Heppinstall).

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

Scott Wiggers. Current. Reproductive output of legumes species in response to fuel conditions in the longleaf pine ecosystem. MS Thesis. Department of Biological Sciences, Auburn University, Auburn, Alabama. (Co-advisor with R. Boyd).

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).