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The Escambia Experimental Forest Marks Fifty Years of Research on the Ecology and Management of Longleaf Pine

William D. Boyer *and* **George A. Ward,** *USDA Forest Service, Southern Research Station, Auburn University, AL, and* **John S. Kush,** *School of Forestry, Auburn University, AL.*

The Escambia Experimental Forest was formally established on April 1, 1947, when the T.R. Miller Mill Company of Brewton, AL, provided land, at no cost, to the USDA Forest Service through a 99 yr lease. This 3000 ac tract in southwest Alabama was selected as typical of second-growth longleaf pine forests that, at the time, covered about 6.2 million ac in south Alabama and northwest Florida. Research on the Escambia was initially aimed at solving the principal management problems associated with longleaf pine including natural regeneration, management alternatives, growth and yield, rotation lengths, thinning regimes, forest grazing, and economic costs and returns.

The 50th anniversary of this research partnership comes at a time of rising concern about the continuing regionwide decline of longleaf pine ecosystems. Less than 3 million ac remain of the estimated 92 million ac dominated by this species in presettlement times. The rich cultural tradition and ecological values associated with the longleaf ecosystem, coupled with the species' adaptability to a wide range of management objectives, make longleaf pine a suitable choice for many landowners in the South, especially when utilizing low-cost natural regeneration strategies and relatively long rotations.

Today the Escambia Experimental Forest constitutes a unique example of longleaf pine ecosystems in all stages of development. The combinations of stand ages, sites, and conditions found here exist nowhere else. The forest supports continuing long-term research studies and management demonstrations. Research has involved all aspects of longleaf pine natural regeneration, including development of the shelterwood system for this species. Other long-term studies and demonstrations include:

1. Stand management and management alternatives including even-aged, two-aged, and all-aged management methods.
2. Growth and yield of even-aged natural stands in relation to age, site quality, and stand density. The regional longleaf growth study was initiated on the Escambia in 1964 and later spread to other locations in Alabama, Mississippi, Florida, Georgia, and North Carolina. Nearly half of the 305 plots in this study are located on the Escambia.
3. Fire ecology, including long-term effects of season and frequency of prescribed fire (or fire exclusion) on growth of dominant pine overstory, as well as effects on composition and structure of the hardwood midstory and both woody and herbaceous vegetation on the forest floor.

To date, work on the Escambia has provided information for 160 publications. Uncounted other reports have utilized data from the Escambia. The long-term silvicultural and fire ecology study sites provide "living laboratories" available to other researchers working to unravel some of the many fascinating mysteries lurking within what was once one of the most extensive forest ecosystems in North America. Long-term research, often difficult to retain, is once again proving to be both an ecologically and financially wise investment.

Visitors are welcome, and tours covering research and management demonstrations on the Escambia Experimental Forest are regularly given for researchers, students, foresters, landowners, and other interested parties. Additional information about the Escambia Experimental Forest can be obtained from the authors (334-826-8700).