Ouachita National Forest

HOT SPRINGS, ARKANSAS

*Shortleaf pine and shortleaf pine-oak woodland management**

Background

The Ouachita National Forest, in western Arkansas and southeastern Oklahoma, contains predominantly east–west running ridges, providing south and southwest facing slopes that lead to optimal shortleaf pine growth. A new Forest Plan in 1990 and several subsequent amendments to the plan began shifting strictly pine plantation management to woodland management (50-70 square feet /acre basal area) over several hundred thousand acres of the Ouachita. This direction was further refined and enhanced in the current Forest Plan, which was issued in 2005. The woodland restoration program supports timber production and wildlife habitat, reduces wildfire risk, and creates a landscape that is both visually appealing and highly favored by hunters and birders.

Over the last 10 years, the national forest moved toward a goal to restore 350,000 acres to shortleaf pine-bluestem grass and shortleaf pine–oak woodlands. Approximately 50,000 acres have achieved this restoration condition, while 150,000 acres are in the process. Additional restoration objectives include developing a recovery level population of the federally endangered red-cockaded woodpecker (RCW) and habitat for a diversity of others species.

Restoration Activities

Restoration methods at Ouachita include commercial thinning, midstory reduction, and prescribed burns (3-4 year rotation) to establish and then maintain shortleaf pine and shortleaf pine-oak woodlands. The desired restoration condition in these landscapes is a woodland basal area (50-70 sq. ft./ acre), minimal midstory, grass

Restored shortleaf pine-blue stem stand after one growing season burn. Poteau Cold Springs Ranger District -Ouachita National Forest.. Credit: Steve Cole.

Shortleaf pine-oak woodland at the Ouachita. Credit: Holly Campbell

**The shortleaf pine forest type is an FIA-defined forest type group where pines comprise 50% of the species present in a forest stand and shortleaf is the most common pine that occurs. The shortleaf pine-oak forest type contains 25-50% pines (shortleaf is the dominant pine) and 50% oak. Basal area for woodlands ranges from 45-65 sq. ft./ acre. Basal area is used to describe the average amount of an area (usually an acre) occupied by tree stems (trunks) and is measured by the total cross-sectional area of all stems in a forest stand-measured at breast height and typically expressed as square feet per acre. Woodlands are described as having widely spaced trees with sunlight reaching the forest floor and contain diverse understory vegetation and wildlife.*

Shortleaf Pine Management Area (SMA) fact sheets highlight regional shortleaf pine management or research projects. Please inquire with project contact/ partners to learn more about a specific management area. For general questions concerning SMAs or the www.shortleafpine.net website, please contact: **Holly Campbell, hcampbell@sref.info**

The Shortleaf Pine Initiative represents a broad range of federal, state, and private agencies and organizations currently working to promote shortleaf pine ecosystem restoration. For more information about shortleaf restoration or the Initiative, please visit: **www.shortleafpine.net**

Shortleaf pine restoration demonstration area displaying an unthinned, natural stand (left) with woodland management (right). Buffalo Road Tour, Ouachita National Forest. Credit: Steven Weaver

and forb understory, and long harvest rotation age of 120 years (160 years in old growth stands). Natural regeneration of shortleaf pine is carried out on 10% or less of the Ouachita landscape through irregular seed-tree or shelterwood harvest.

Additional Information

- Shortleaf Pine/Bluestem Grass Ecosystem Renewal in the Ouachita Mountains
  http://www.fs.usda.gov/detailfull/ouachitahome/?cid=fsm9_039689&width=full
- Native Expeditions
  http://www.nativeexpeditions.org/habitat-restoration.html

Project Partners

The Nature Conservancy, Audubon Arkansas, Arkansas Audubon Society, US Fish and Wildlife Service, Natural Resources Conservation Service, Arkansas Game & Fish Commission, Oklahoma Department of Wildlife Conservation, Arkansas Natural Heritage Commission, Arkansas Forestry Commission, Oklahoma Forestry Services, West Fraser, Inc., Oklahoma Biological Survey, Arkansas State University, University of Arkansas, Oklahoma State University, Tall Timbers, Southern Research Station, Northern Research Station, Arkansas Technical University, National Wild Turkey Federation, Quail Unlimited, Arkansas Wildlife Federation, Monarch Watch, Monarch Joint Venture, AES Shady Point, Shortleaf Pine Initiative, Central Hardwoods Joint Venture, Lower Mississippi Joint Venture

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Southern Regional Extension Forestry

Southern Regional Extension Forestry (SREF) is a diverse team of trained natural resource educators, IT specialists, graphic designers, communications and marketing experts, and media and content producers. SREF works closely with the Southern Land Grant University System, US Forest Service, and state forestry agencies to develop content, tools and support for the forestry and natural resource community. Improving the efficiency, effectiveness and relevance of supporting institutions is a primary goal at SREF.