

Pushmataha Wildlife Management Area

SOUTHEASTERN OKLAHOMA



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

Background

The Pushmataha Wildlife Management Area (WMA) is a 19,247 acre site in southeastern Oklahoma. A primary forest plan objective at Pushmataha is to restore the ecosystem to “pre-settlement” conditions, a condition that enhances understory plant diversity for wildlife management.

A 32 year study on vegetation response to fire frequency has been ongoing at Pushmataha. One shortleaf pine-bluestem plot is being monitored in this study. Regular prescribed burns have greatly enhanced wildlife abundance and diversity at Pushmataha, including the northern Bobwhite quail, Bachman sparrow, and red-headed woodpecker. Though timber sales are currently diminished, savanna and woodland management at the WMA has greatly improved wildlife management and recreational opportunities. Initially, hunters resisted the transition in management from dense forests to lower basal area management, but were then impressed by the increase in hunted species from this change.

Restoration Activities

Pushmataha is currently managing 7,000 acres of shortleaf pine-post oak savanna (30 square feet/acre basal area) and 250 acres of shortleaf woodlands (60 square feet/acre basal area). The remainder of the WMA is in the process of becoming a mixed oak-shortleaf pine woodland, which is accomplished by mechanical thinning to 60 square feet/acre basal area. Maintenance of all areas is by use of prescribed fire. The savannas are burned on a two year rotation and the shortleaf woodland is burned annually.



Aerial view of shortleaf pine- bluestem restoration near Pushmataha WMA headquarters. Credit: Pushmataha WMA



Shortleaf pine-post oak savanna at Pushmataha. Credit: Clarence Coffey

*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% oaks. Basal area for savannas ranges from 30-45 sq. ft./ acre and 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. Both savannas and 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

Additional Information

- www.wildlifedepartment.com
- Available for tours

Project Partners

Oklahoma Department of Wildlife Conservation, USDA Forestry Services, National Wild Turkey Federation, Rocky Mountain Elk Foundation, Tall Timbers Research Station, Oklahoma State University and the University of Wisconsin Stephens Point

Project Contact

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*Shortleaf pine savanna management at Pushmataha.
Credit: Clarence Coffey*



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