

Catoosa Wildlife Management Area

CRAB ORCHARD, TENNESSEE



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

Background

The Catoosa Wildlife Management Area (WMA), a 78,000 acre site on the upper Cumberland Plateau, contains 250 acres of shortleaf pine and shortleaf pine-oak savannas and 700 acres of shortleaf pine-oak woodlands. Partnering with the US Fish and Wildlife Service, the Catoosa WMA is developing long term goals of the Habitat Conservation Plan, a plan that seeks to improve wildlife habitat through forest management- Catoosa's shortleaf stands are part of this plan.

Restoration Activities

Catoosa's shortleaf savannas and woodlands have specific restoration goals. Shortleaf pine and shortleaf pine-oak savanna restoration goals include maintaining 30-35 square feet/ acre basal area and establishment of warm season native grasses and other early successional species in the understory. Shortleaf pine-oak woodland restoration goals include maintaining a minimum of 60 square feet/ acre basal area and a harvest rotation of 60 years.

Savannas and woodlands follow similar site preparation and stand management techniques at Catoosa. Following harvest or a disturbance event (from Southern Pine Beetle or tornado damage), sites are mechanically prepped and planted with bareroot shortleaf seedlings on an 8X8 foot spacing. When saplings are tall enough to survive a cool fire, a dormant season prescribed burn is used within the stand. Thereafter, prescribed fire is used every 3 years or less to manage understory competition (both growing and non-growing season burns are used).



This image displays a naturally regenerated shortleaf pine stand that is managed as a savanna. Credit: Catoosa Wildlife Management Area



Natural regeneration of shortleaf pine in a stand managed as a savanna. Credit: Catoosa Wildlife Management Area

*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



*Artificially regenerated shortleaf pine (planted in 2000) at Catoosa.
Credit: Catoosa Wildlife Management Area*



*Dormant season, cool burn in savanna management area at Catoosa.
Credit: Catoosa Wildlife Management Area*

Additional Information

- www.tn.gov/twra
- www.state.tn.us/twra

Project Partners

Tennessee (TN) Wildlife Resources Agency, U.S. Fish and Wildlife Service, National Fish and Wildlife Foundation, National Wild Turkey Federation, University of TN (UT)-Center for Native Grassland Management, UT-Department of Wildlife & Fisheries, Nature Conservancy, TN Wildlife Foundation, Austin Peay State University, Quail Forever, National Bobwhite Conservation Initiative, Shortleaf Pine Initiative, TN Ornithological Society, Botanical Research Institute of Texas, Oak Woodlands & Forests Fire Consortium, U.S. Forest Service, The National Park Service

Project Contact

Dwayne Robinson, Dwayne.Robinson@tn.gov



**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.