

Tennessee



Forest Health Highlights

2012

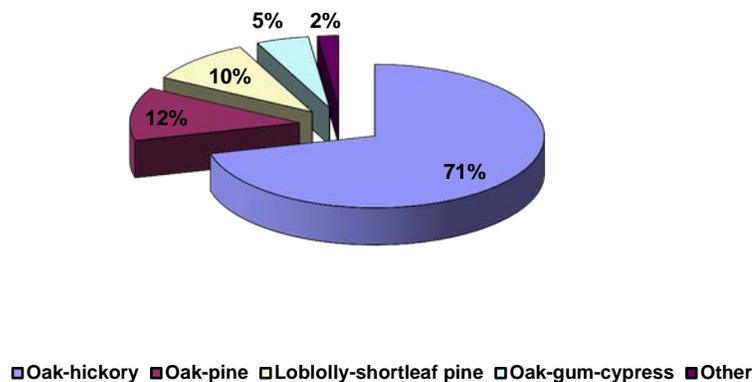
The Resource

Tennessee's forests cover 14.4 million acres, more than half of the state's land area. The majority of the state's forested land, some 8.7 million acres, is in non-industrial private ownership, while approximately 556,000 acres are in national forest. Tennessee's forests are prized for their scenic beauty, supporting tourism and outdoor recreation and providing wildlife habitat from the Appalachian Mountains in the east to the Mississippi Valley in the west. The major forest type in the state is oak-hickory comprising 71% of the forested acres. Other major types include loblolly-shortleaf pine, and mixed oak-pine comprising 22%. Oak-gum-cypress and other species comprise just 7% of the state's forests.



Chris Evans, River to River CWMA, Bugwood.org

Tennessee Forest Type Distribution



Forest Influences and Programs

Thousand Cankers Disease (TCD) was discovered in July, 2010 for the first time within the native range of black walnut, although in primarily urban environments in Knox County (Knoxville area). Since then, further survey work has determined the disease to be present in 5 additional counties, but no new determinations were made in 2012. The occurrence of TCD in the eastern U.S. has significant implications for the future of black walnut. Little is known about how TCD, caused by a combination of the walnut twig beetle and an associated fungus, might develop and spread in the east. Extensive survey and evaluation work continues.



Emerald ash borer (EAB) was discovered in July, 2010 at two locations in East Tennessee outside of Knoxville. Since then, trapping of EAB has resulted in 18 counties being federally quarantined. Trapping efforts have been intensified as beetles are caught in previously un-infested areas. The inevitable mortality of ash trees has not been quantified in these counties to date, although some has been identified in some areas.

Hemlock woolly adelgid (HWA): The hemlock woolly adelgid continues to move west. To date, thirty five counties have confirmed infestations that vary from severe to single tree infestations. This year is the first year the Division of Forestry has allocated one full time forester to a single forest health issue, HWA. This forester is responsible for organizing HWA treatments on public lands as well as provides technical assistance to private landowners. The Tennessee Hemlock Conservation Partnership has been established to head up HWA treatments and halt further movement and tree mortality. The partnership consists of the Tennessee Division of Forestry, Tennessee Wildlife Resources Agency, Tennessee Department of Environment and Conservation, National Park Service, and The Nature Conservancy.



Southern pine beetle (SPB) and other bark beetles: No outbreaks of southern pine beetle were reported in 2012. Four counties were trapped this year with two traps each. Clerid populations are high and SPB populations are non-existent. Several occurrences of *Ips*, deodar or reproductive weevils, and black turpentine beetle have been reported but no major damage resulting.

Gypsy moth: Ten delimiting trap sites and 12,911 gypsy moth traps were installed in 2012. A total of 13 moths were trapped in Tennessee, mostly in high risk sites such as campgrounds and rest areas. Egg mass surveys will be conducted at these sites this winter and these sites will be delimited in 2013.

Red cedar mortality: Extensive eastern red cedar mortality has been noted in Wilson, Davidson, and Rutherford counties. This mortality is occurring most often on cedar glades and shallow soils. Drought is the primary factor. Insect infestation such as bagworms has been noted as a secondary stressor. Aerial detection flight was conducted on August 1 to further assess the extent and damage. Within Cedars of Lebanon State Forest, we estimated 3,215 acres under high stress, 1,589 acres under low stress, and 3,283 acres with spotty areas of stress.

Fire: Wildfire occurrences as of the end of September 2012 total is 787 fires burning 6,634.2 acres. 212 fires burned 3,008 acres from arson, 292 fires burned 1288 acres from debris, and 283 fires burned 2,337 acres from other sources.

Storm damage: Four tornados damaged 1998 acres of forested acres between February and March 2012. The damage was spread across six counties. Aerial detection flight was conducted on April 12. No reforestation plans are in place as natural regeneration and salvage operations are well underway.

Heat/Drought: Widespread drought was observed throughout west and middle Tennessee. Affected forest areas included single tree mortality to large acreage of stressed or dying trees. Cedars in the middle Tennessee area sustained significant damage or mortality. Secondary pest, disease, dieback, and decline have furthered forest stress.

Sudden oak death (SOD) is a disease with the potential of serious consequences if found in Tennessee's forests. Surveys were initiated in 2003 and continued through 2012. SOD surveys focus on comprehensive stream sampling projects involving watersheds containing several nurseries that may receive potentially infected plant stock. To date no infected sites have been identified by these surveys in Tennessee. Stream sampling will continue in Middle and East Tennessee during 2012.

Forest Health Assistance in Tennessee

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