

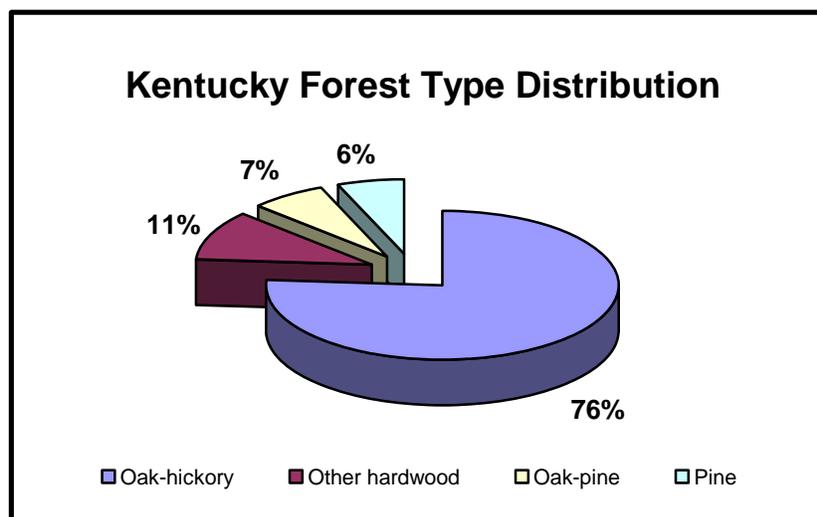
# Kentucky



## Forest Health Highlights 2008

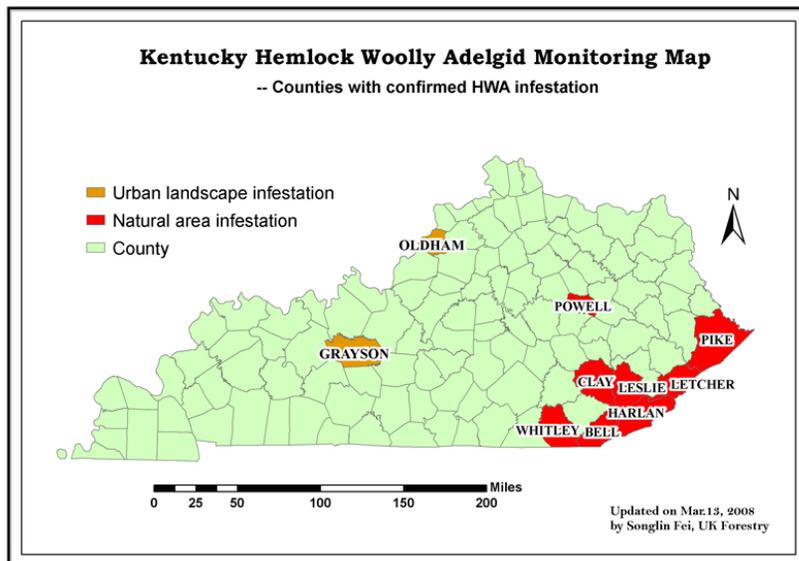
### The Resource

Kentucky's forests cover more than 12.6 million acres, almost half of the state's land area. The majority of the state's forested land, some 11.2 million acres, is in non-industrial private ownership, while approximately 699,000 acres are in national forest. Forestry is an important industry in Kentucky, providing 29,400 jobs and producing \$468 million in annual revenue. Kentucky's forests are also 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. Major forest types in the state include oak-hickory, pine, and mixed oak-pine. Other hardwoods comprise 11% of the state's forests.



## Forest Influences and Programs

**Hemlock woolly adelgid (HWA)** surveys were completed in the Northeastern, Eastern, Kentucky River and Southeastern districts. The adelgid was found in more than 50 sites in Bell, Clay, Grayson, Harlan, Leslie, Letcher, Oldham, Powell, Pike and Whitley counties. The infestations in Grayson and Oldham counties were fairly isolated and were eradicated by the landowner. One hundred percent of the creek drainages have some level of infestation. This forest compasses 14,000 acres and includes Pine Mountain State Park, Pine Mountain Trail, multiple wildlife management areas and nature preserves and is near Cumberland Gap National Historic Park. Surveys within Kentenia State Forest revealed that minor infestations occur in approximately 50% of the creek drainages. Kentenia State Forest is also surrounded by wildlife management areas and nature preserve properties and is bordered to the north and east by Daniel Boone National Forest Redbird Ranger District. Soil injection of the insecticide, Imidacloprid, was utilized in several sites in Kentucky Ridge and Kentenia state forests. Predatory beetles were released in Kentucky Ridge State Forest near the heavily-visited Pine Mountain State Park Hemlock Trail and in the heavily infested southern end of the forest near Chenoa.



The newest site found in Powell County is located in the US Forest Service Red River Gorge nears Gray's Arch. It is believed that HWA was accidentally introduced by a hiker since it is nearly 100 miles from the nearest infestation. Follow-up surveys have not revealed any additional infestations but further surveys will be performed this winter. Surveys this winter will begin in the adjacent counties next to known infested counties and it is expected that additional infestations will be uncovered. Eastern hemlock is native to the eastern 1/3 of the state and to date no mortality has been noted. Plans for chemical treatment in multiple drains in Kentucky Ridge State Forest to ensure hemlock seed perpetuity will begin in early 2009.

**Emerald Ash Borer (EAB)** In the spring of 2007, EAB was discovered in Hamilton County, Ohio, about four miles north of the Kentucky border. Currently the entire states of Illinois, Indiana, Missouri and Ohio are under federal quarantines that restrict the movement of ash trees, branches, logs and firewood out of those states. Kentucky is cooperating with the USDA-PPQ personnel to enforce this federal quarantine. As of July 2008, EAB has been found in Wayne County, Mo., only 140 miles away from Paducah.

In partnership with APHIS and the University of Kentucky, Department of Entomology, the division assisted in the placement of approximately 2,500 purple triangular traps in northern Kentucky and at campgrounds and other locations with high camper and tourist traffic, including US Forest Service's Land Between the Lakes, Bernheim Arboretum, Mammoth Cave National Park and Lake Cumberland. These traps were baited with a manuka oil beetle attractant and glue to lure and capture EAB. Traps were set out at predetermined survey points on both private and public land along the edges of woodlots in counties north of I-64. To date, no EAB were captured. GPS coordinates of all trap locations are available from the UK Department of Entomology contact, Joe Collins ([Joe.Collins@uky.edu](mailto:Joe.Collins@uky.edu)).

The lumber industry in Kentucky has been very supportive of the measures designed to restrict the accidental movement of EAB into the state. Firewood movement has been a major factor in the spread of EAB; thus, the Kentucky state parks have banned firewood from quarantined areas. The Kentucky Forest Health Task Force produced a firewood poster that has been displayed at all state and federal parks, campgrounds and various other sites across the state. The poster can be viewed at <http://www.forestry.ky.gov/programs/health/>.

**Gypsy Moth.** 2008 Gypsy Moth captures in Kentucky totaled 184 moths captured through the Slow the Spread program. The program is overseen by APHIS and locally administered through the University of Kentucky, Department of Entomology. As in previous years, Campbell County in northern Kentucky (county south of Cincinnati) had 63% of the moths (116 moths). The rest of the counties were as follows: Boyd – 8, Clark – 1, Fleming – 1, Greenup – 6, Jessamine – 1, Martin – 2, Owen – 1, Boone – 2, Carter – 2, Floyd – 2, Johnson – 2, Lawrence – 3, Mason – 2, Scott – 2, Fayette – 3, Pike – 4, Bracken – 4, Kenton – 12, Pendleton – 8 and USFS captures include - Buckhorn – 1, Cumberland Ranger District – 1. GPS coordinates are available from the UK Department of Entomology contact Carl Harper ([charper@email.uky.edu](mailto:charper@email.uky.edu)). We anticipate larger capture numbers in 2009 since Ohio has decided to discontinue their Slow the Spread program.

**Southern pine beetle (SPB)** activity was absent in Kentucky in 2008, in large part due to host depletion in the eastern part of the state during epidemic conditions which occurred in prior years. Kentucky is thinning residual pine stands on State forest land in an effort to prevent future losses from this insect.

**Forest tent caterpillar (FTC)** continues to move across the Ohio River counties of northern Kentucky in an easterly direction toward the northeastern region of the state. The forefront of this easterly migration into Bracken and Mason counties shows that FTC numbers have continued to drop due to the Polyhedral virus. Monitoring surveys will continue in 2009.

**Cicada** broods of 17-year, 13-year and annual cicadas emerged in record numbers in the eastern third of the state. Their deafening cacophony began in May and was concluded by September. Hardest hit from ovipositor damage were white oak, nursery stock, fruit trees and vineyards.

**Beech Bark Disease** surveys were performed in several areas in Carter and Boyd counties. The disease is currently in Ohio and West Virginia and the heaviest concentration of American beech in KY is northeastern and eastern KY. Fortunately, no beech bark disease has been found. Surveys in 2009 will include areas in Bath, Laurel, Menifee, Pike, Rowan and Whitley counties which according to FIA data, have the highest concentration of American beech.

**Invasive Exotic Plants** are one of Kentucky's biggest threats. In partnership with the Kentucky Exotic Pest Plant Council, Louisville Metro Government and Lexington Fayette Urban County Government, two bush honeysuckle treatment experiments were developed in small urban parks in Lexington and Louisville. Several different treatment options were performed in 1/10-acre plots. Treatments included: removed by chainsaw and treated with Garlon, removed by chainsaw with no herbicide, removed by weed wrench by its roots and basal sprayed with Garlon, with no cutting. All had some success, but the two options using chemical had the most kill. The weed wrench was successful at removing the existing plant but root sprouts were back within just a few weeks. The last treatment of cutting with no herbicide provided an immediate fix but the honeysuckle grew back even thicker. Chinese silver grass, Japanese stilt grass, garlic mustard, tree of Heaven, mimosa, common reed, purple loosestrife, autumn olive, bush honeysuckle, oriental bittersweet, multiflora rose, paulownia, Chinese yam, burning bush, kudzu, Chinese privet and Japanese knotweed populations are being monitored annually and coordinates are entered into the Southeast Exotic Pest Plant Council database - <http://www.se-eppc.org/eddMapS/kentucky.cfm>.

## Forest Health Assistance in Kentucky

**Kentucky Division of Forestry**  
627 Comanche Trail  
Frankfort, KY 40601  
502-564-4496

<http://www.nrstate.ky.us/nrepc/dnr/forestry/dnr dof.html>

**USDA Forest Service**  
Southern Region, State & Private Forestry  
Forest Health Protection  
200 W.T. Weaver Road  
Asheville, NC 28804  
828-257-4320

<http://www.fs.fed.us/r8/foresthealth/>