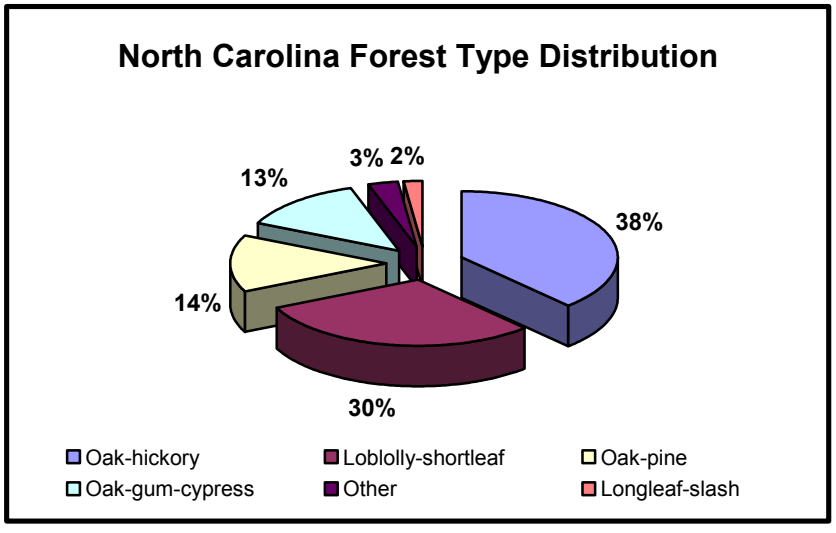
North Carolina

Forest Health Highlights 2007

The Resource

North Carolina's forests cover 18.3 million acres, more than 57% of the state's land area. The majority of the state's forested land, some 13.8 million acres, is in non-industrial private ownership, while approximately 1.1 million acres are in national forests. Forestry is the state's second most important industry, providing 144,100 jobs and producing $3.2 billion in annual revenue. North Carolina's forests are also prized for their scenic beauty, supporting tourism and outdoor recreation and providing wildlife habitat from the Appalachian Mountains to the lowlands of the Atlantic Coastal Plain. Major forest types in the state include oak-hickory, loblolly-shortleaf pine, oak-pine, and oak-gum-cypress. Longleaf-slash pine forests, historically much more widespread, now comprise only 2% of the state's forests, while other minor types account for an additional 3%.

USDA Forest Service photo.



Forest Influences and Programs

Southern pine beetle (SPB) is North Carolina's most significant forest insect pest. In 2007, SPB remained at background levels, with only 15 scattered spots reported. An SPB prevention cost-share program was initiated in 2005 and continued in 2007 to assist landowners in stand improvement work (particularly thinning) to create stands that are lower-hazard to SPB infestations.

Pine engraver beetles (*Ips* spp.) produced reports of light to moderate activity statewide in 2006. Because *Ips* infestations tend to be relatively small and scattered, they usually cannot be effectively controlled or salvaged, but their economic costs may approach those caused by SPB.

Hemlock woolly adelgid (HWA) Infestations of the hemlock woolly adelgid continued to spread and intensify in the Southern Appalachians in 2007. The adelgid now infests most of the range of both eastern and Carolina hemlocks in the state. Mortality is very apparent in infested counties—primarily in forested stands where control is difficult and cost prohibitive. The use of systemic insecticides has been the primary control method used on state and private lands, however some release of predatory beetles has occurred on state forests. Most control is confined to urban landscape trees, and trees of high aesthetic, historic and sentimental value in other areas on private lands. Treatment on public lands is primarily limited to trees near visitor centers, campgrounds, along roads and trails and near certain streams. However, the impact of the adelgid continues to outpace efforts to control the pest. Forest ecologists note that the insect endangers the very survival of both eastern and Carolina hemlocks throughout the range of these species. Because of its important role in riparian ecology, the loss of hemlock could have a devastating impact on these ecosystems.


Connecticut Agricultural Experiment Station Archive, Bugwood.org

Gypsy moth defoliation did not occur in North Carolina in 2007, but male moth catches were higher than normal. It is thought that flying male moths were blown into the state during spring storms creating a "bulge" of very high male moth catches protruding into the state from the leading edge of infestation across the border in Virginia, near Danville. Slow-the-Spread treatments were made in North Carolina on 3,809 acres of non-federal lands and 29,828 acres of national forest lands. More than 90% of the acreage was treated with mating disruption, a tactic that is specific to the gypsy moth. One eradication treatment was made in 2007 in Caldwell County where 700 acres were treated with the biological insecticide *Bacillus thringiensis* var. *kurstaki*.

Dogwood anthracnose is a disease of cool, moist areas in the higher elevation forests of western N.C. It is currently found in 30 counties and is causing significant mortality to native dogwoods. No new occurrence counties were reported in 2007.

Beech bark disease continues to intensify in the Great Smoky Mountains where it was first identified and is spreading into new territory at lower elevations. The disease, caused by the interaction between a scale insect and a fungus, threatens to spread throughout the hardwood forests of the South.

Sudden Oak Death surveys continued in 2007. The surveys utilized susceptible rhododendron leaves to bait streams and detect the presence of the pathogen *(Phytophthora ramorum*) in waterways draining horticultural nurseries that had received potentially infected stock from suppliers in California and Oregon; symptomatic leaves were collected and tested to determine whether the pathogen was present. The pathogen has not yet been detected in North Carolina.

Forest Health Assistance in North Carolina

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