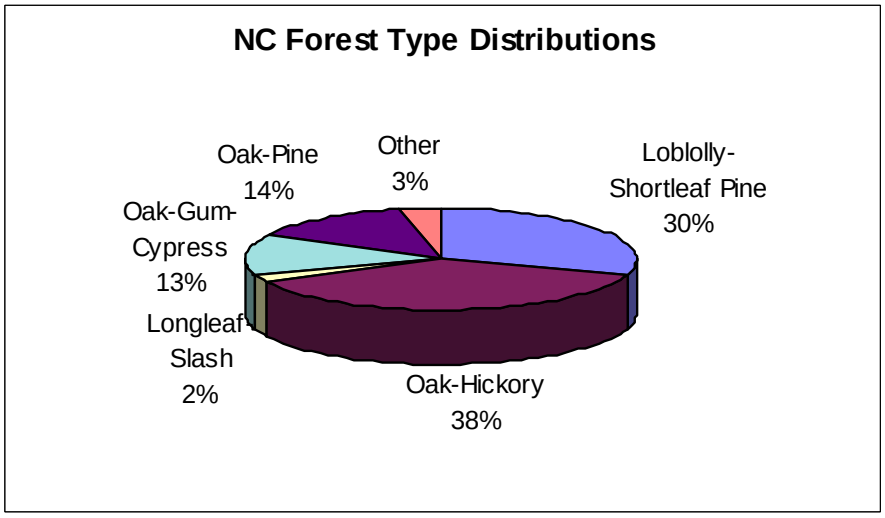
North Carolina

Forest Health Highlights 2005

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 nonindustrial 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 and shortleaf pine, mixed oak-pine, and oak-gum-cypress. Longleaf and slash pine forests, historically much more widespread, now comprise 1.3% of the state's forests, while other minor types account for an additional 3%.



Forest health monitoring (FHM) activities are cooperative efforts between the USDA Forest Service and the NC Department of Environment and Natural Resources' Division of Forest Resources. The FHM program was initiated in North Carolina in 1998, and includes periodic measurement of 350 fixed plots as well as regular aerial and ground surveys to detect forest damage.

Special Issues

Key issues which State and federal programs are addressing cooperatively include:

- Urban area expansion and related impacts on forest land acreage and forest health
- Water quality protection through greater use of best management practices
- Sustaining forest resources through wise private landowner stewardship

Forest Influences

Southern pine beetle (SPB) is North Carolina's most significant forest insect pest. In 2005, SPB remained at background levels, with only 23 scattered spots reported. A SPB prevention cost-share program was initiated in 2005 to assist landowners in stand improvement work to create SPB resistant stands.

Pine engraver beetles (*Ips spp.*) displayed scattered light activity in the eastern Piedmont and Coastal Plain in 2005. 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) has now spread to all counties in western N.C., infesting both of the native hemlock species. Current suppression activities involve a cooperative effort to rear and release predators in hope of achieving biological control of the adelgid, but the prognosis for hemlocks is not good. Except on individual trees in landscape settings, chemical control of HWA is not practical, and major losses of these ecologically valuable trees are probable within a few years.

Gypsy moth activity in the state was moderate in 2005, and control activities were limited to spot spraying and trapping. *Bt* treatments were conducted on 83,000 acres in 8 counties.

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. Weather conditions favored anthracnose in 2005; checks of permanent impact plots revealed continuing native dogwood mortality. No new occurrence counties were reported.

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.

Weather continued to impact North Carolina's forests in 2005. Hurricane Ophelia caused some damage to forest lands along the coast.

Sudden Oak Death surveys continued in 2005. The surveys were focused around the perimeters of horticultural nurseries that had received stock potentially infected with the *Phytophthora ramorum* pathogen from suppliers in California and Oregon; symptomatic foliar samples were collected and analyzed using PCR to determine whether the pathogen was present. The disease has not been detected in North Carolina.

Forest Health Assistance in North Carolina

For further information or assistance, contact:

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