

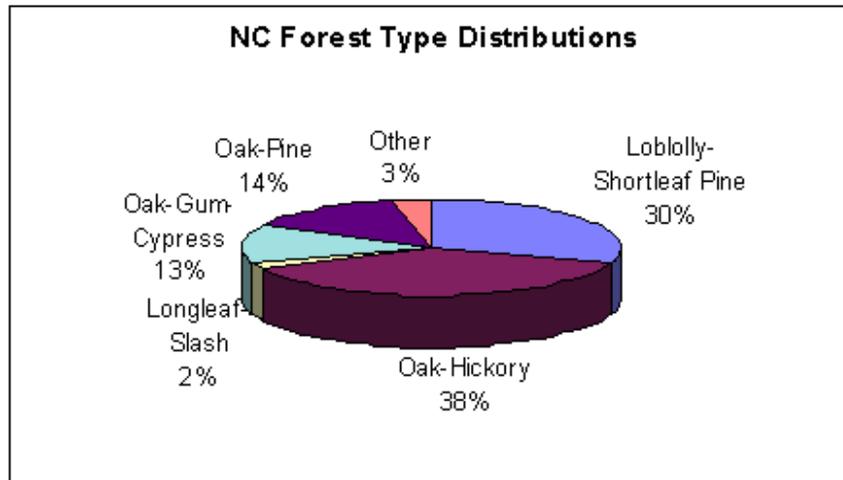
# Forest Health Highlights 2002

## North Carolina

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### The Resource

North Carolina's forests cover 19.2 million acres, more than 55% of the state's land area. The majority of the state's forested land, some 14.3 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 wide-ranging, now comprise 2% 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 196 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 2002, SPB activity increased 47% over 2001 levels to 4,028 spots in 63 counties, 27 of which were in epidemic status. Activity was greatest in the Appalachian foothills and Piedmont. A new landowner assistance program for active SPB spot suppression was implemented in 2002.

Pine engraver beetles (*Ips* spp.) displayed heavy activity in the eastern Piedmont and Coastal Plain in 2002. 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) was first detected in Stokes and Surry Counties in 1995. It has since spread to 22 additional 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 minor in 2002, and control activities were limited to trapping. No new infestations were reported.

Dogwood anthracnose is a disease of cool, moist areas in the higher elevation forests of western N.C. It is currently found in 28 counties and is causing significant mortality to native dogwoods. Checks of permanent impact plots in 2002 revealed that 58% of the native dogwood has been killed by anthracnose in 24 of these counties covering 2.4 million acres; other factors have accounted for an additional 22% loss, for a total of 80%.

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 2002. The fifth year of a protracted drought ended with heavy rains in October, November and December, but the wet weather arrived too late to affect the growing season, and dry weather contributed to a host of other forest health problems statewide. Late spring frosts severely damaged Christmas tree plantations in the western part of the state; seedling losses will impact growers for several years. A December ice storm resulted in electric power loss to 1.7 million customers in the central Piedmont, and caused widespread timber damage along forest edges and in recently thinned stands.

Fire, exacerbated by the drought, burned 28,769 acres in the state in 2002. A total of 5,480 wildland fires were reported, many caused by arson.

## **Forest Health Assistance in North Carolina**

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