

Forest Health Highlights

Connecticut



February 2000

The Resource

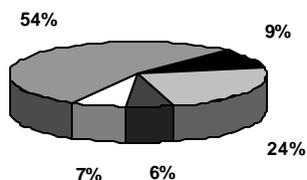
Connecticut's forests are 85% privately owned and made up of mostly oak/hickory and northern hardwood tree species. These forests provide clean water and air, wildlife habitat, and sources of recreation, timber and fuel. Forested parks and shade trees aesthetically enhance communities as well as provide energy savings, habitat for wildlife, and recreation opportunities.

• 59% of the state is forested
(1,826,000 acres)

Out of the forested area:

- 97.3% timberland
- 2.7% non commercial or reserved forestland

Major Forest Types:



- white/red pine/hemlock (9%)
- northern hardwoods (24%)
- other (6%)
- elm/ash/red maple (7%)
- oak/hickory (54%)

Special Issues

Most forest problems in Connecticut continue to be caused by organisms which have been introduced into the United States since the mid-1800s. These exotic pests have thrived in their new environment and caused major forest health concerns.

The **gypsy moth** was brought to Massachusetts from Europe in 1860 in an attempt to develop a better silkworm. The insect was accidentally released several years later near Medford, Massachusetts and reached Stonington, Connecticut by 1905. For over 100 years, scientists have been trying to control the gypsy moth and its spread. Fortunately, populations have been low in Connecticut in recent years. The major reason has been due to the impact from the fungus, *Entomophaga maimaiga*, which infects gypsy moth caterpillars. This naturally occurring fungus has kept the destructive moth under control in several states and resulted in a dramatic drop in the number of wooded areas that were defoliated. In 1999, no defoliation was observed in Connecticut during the annual aerial survey that was conducted in early July. Egg mass surveys in the fall and early winter indicated that gypsy moth population levels are very low. This survey includes 102 sites on a 7-mile grid across the state. Despite the drought in 1999, the fungus has kept the population of the gypsy moth at low levels in Connecticut. No significant defoliation is expected during the spring and summer of the year 2000.

The **hemlock woolly adelgid**, which originated in Japan, has been in the eastern United States since 1921 and was found in Connecticut in 1985. This insect remains an important problem of eastern hemlock in Connecticut. All 8 counties and each of the 169 towns in the state are infested. Researchers at the Connecticut Agricultural Experiment Station are working in cooperation with the USDA Forest Service to release predatory ladybug beetles in an attempt to control the adelgid population. Over 100,000 beetles have been released on 16 sites in Connecticut. The condition of the hemlock continues to decline. The drought in the summer of 1999 and several recently mild winters, which allowed the adelgid and hemlock scale to proliferate, added to the decline of hemlock trees across the state.

Special Issues cont.

Butternut canker is a fungus disease that was first reported in the United States in Wisconsin in 1967 and is widespread throughout the range of butternut. Cankers, which develop on the twigs, branches, and stems, can coalesce and kill the tree. Approximately 80 percent of the butternut trees examined in the state are infected and some mortality has occurred. A few trees have shown a resistance to the disease. Connecticut is cooperating with the USDA Forest Service and the New Hampshire Division of Forests and Lands to locate healthy trees and graft material to test for disease resistance.

The **Asian longhorned beetle** is a significant introduced insect that was discovered in New York City in 1996 and in Chicago in 1998. Many different species of hardwoods have been found infested, with large bored holes, in the affected areas. The infested areas are under quarantine and an extensive eradication program is underway to eliminate the insect. The insect has not been found in Connecticut. Extensive surveys have been conducted around ports in the southern part of the state, including Bridgeport, Groton, New Haven, and New London. In cooperation with the US Department of Agriculture, Animal and Plant Health Inspection Service, a delimiting grid survey of various sites in the state is continuing.

The most recent introduced pest into Connecticut is the **small Japanese cedar longhorned beetle**, discovered in Milford in the fall of 1998. This was the first find of infested live aborvitae trees in the United States. Over 200 nurseries in Connecticut have been

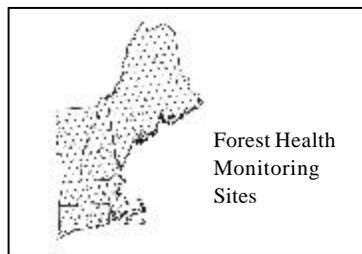
inspected. Infestations were found in Milford, Greenwich, North Haven, and Stamford. This pest poses a serious threat to the nursery industry in the state. Research has been initiated to determine development of the insect and potential chemical control.

Regional Surveys

Connecticut participates in the National Forest Health Monitoring program to help provide a regional assessment of forest conditions. Also, a network of 51 permanent forest sites has been established to monitor forest health on state, Nature Conservancy, and municipal water company properties. The sites are visited annually to assess whether state forests remain healthy or are declining.

National Forest Health Monitoring Program

The objective of this program is to assess trends in tree condition and forest stressors. All of the New England States have been involved since the program was initiated in 1990. Results indicate that there has been minimal change in crown condition in the



last 10 years. In 1999, 98 percent of trees greater than 5 inches diameter had normal crown fullness. About 98 percent of the trees had little or no crown dieback, and 76 percent showed no measurable signs of damage. The most common damage was decay indicators, which were more evident on hardwoods than softwoods. Additional surveys indicate that there are concerns for individual species such as ash, butternut and hemlock due to various damage agents.

For More Information

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