2002 Forest Health Highlights

Connecticut

January 2003

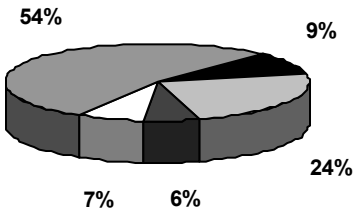
The Resource

Connecticut's forests are 85 percent privately owned and consist 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% noncommercial or reserved forest land**

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-1800's. These exotic pests have thrived in their new environment and caused major forest health concerns.

Over 1.8 million acres were examined as part of an aerial survey of urban/suburban forest assessing possible damage from the **European gypsy moth**, *Lymantria dispar*. There was no defoliation observed in 2002. The parasitic fungus, *Entomophaga maimaiga,* has been suppressing the gypsy moth population in Connecticut since 1989. From late November to early December, the annual gypsy moth egg mass survey was conducted at 102 host sites on a 7-mile grid throughout Connecticut. Gypsy moth egg mass counts were very low and little defoliaiton is expected to occur in 2003.

The **hemlock woolly adelgid***, Adelges tsugae*, remains an important pest of hemlock in Connecticut. The adelgid has spread northward since its coastal detection in 1985 and now occurs in all 169 towns in the State. Dr. Mark McClure, chief scientist at the Connecticut Agricultural Experiment Station's Valley Lab, collected a natural enemy of the adelgid from Japan, a coccinellid beetle, *Pseudoscymnus tsugae.* The beetle has been reared and released in an attempt to control the adelgid.

Along with the adelgid, two other introduced pests have been affecting the hemlock resource, the **elongate scale,** *Fiorinia externa*, and the **circular scale**, *Nuculapsis tsugae*. They have been reported statewide and their populations have increased over previous years. The stress on the trees is compounded by the recent prolonged drought conditions.

Based on surveying with trap-logs and on rearing from dead wood, the exotic **smaller Japanese cedar longhorned beetle**, *Callidiellum rufipenne*, is established in 44 towns in Fairfield, Middlesex, New Haven, and New London Counties. The beetle successfully developed on eight species of ornamental and wild plants in the family Cupressaceae. In the wild, the principal host was dead eastern redcedar, but it also infested dead common juniper and Atlantic white cedar. In garden centers, the main hosts were stressed balled and burlaped arborvitae and other cupressaceous landscape plants.

Special Issues cont.

In August 1996, a new exotic, the **Asian longhorned beetle**, *Anoplophora glabripennis*, was discovered attacking trees in Brooklyn and Amityville, New York. This exotic woodborer has spread to several boroughs in New York and now occurs in two locations in Chicago, IL and Jersey City, NJ. Various species of maple, horse chestnut, birch, poplar, willow, elm, and hibiscus have been attacked. The infestation has spread to within 25 miles of the Connecticut/New York border. Intensive surveys are being conducted within a 75-square mile area in southwestern Connecticut. There is risk of entry at ports because the beetle has been transported on ships from Asia on solid wood packing material. Therefore, additional survey efforts are concentrated in Bridgeport, Groton, New Haven, and New London, as well as their surrounding parks.

The **orange-striped oakworm**, *Anisota sentoria*, is a common native pest of oak species in Connecticut. Local infestations occur when oaks have been stressed by other factors such as drought or gypsy moth. In 2002, an aerial survey indicated that 1,597 acres of defoliation had occurred on oak in Windham County, similar to the area impacted in 2001.

Butternut canker, *Sirococcus clavigignenti-juglandacearum,* has been found throughout Connecticut. Large limbs and tree trunks are girdled by the cankers, causing mortality. Of over 595 trees monitored in the State, 94 percent were found to be infested. Scion material has been collected from disease-free trees to test disease resistance.

The **pine shoot beetle,** *Tomicus piniperda***,** was first discovered in Ohio in 1992 and is now found in nine States and Canada, most recently in Vermont, New Hampshire, and Maine. Surveys at Christmas tree farms and the examination of cut Christmas trees shipped into Connecticut indicate that the beetle has not entered the State.

Regional Surveys

National Forest Health Monitoring Program

Connecticut participates in the National Forest Health Monitoring Program to help provide a regional assessment of forest conditions. 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 13 years, with about 95 percent of trees greater than 5 inches diameter having normal crown fullness, about 85 percent with little or no crown dieback, and 70 percent showing 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.

Forest Health Monitoring Sites

In addition to the Forest Health Monitoring Program, a network of 51 permanent forest sites have 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. Trees are evaluated for signs of defoliation and disease. These plots will continue to be used to assess if the State's forests remain healthy.

For More Information

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