

2001 Forest Health Highlights

Connecticut



The Resource

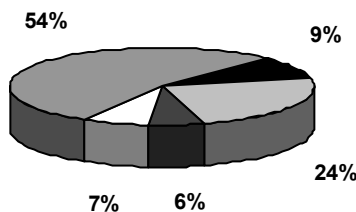
Connecticut's forests are 85 percent privately owned and consist of mostly oak/hickory and northern hardwood tree species. These forests provide clean water and air, wildlife habitat, and sources of recreation, timber, and fuel. Forested parks and shade trees aesthetically enhance communities as well 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**. Only 367 acres in Windham County were observed to have defoliation, despite high egg mass counts. There appeared to be adequate precipitation during the early development of the gypsy moths to trigger the parasitic fungus, *Entomophaga maimaiga*, that has been suppressing the gypsy moth population in Connecticut since 1989. From late November to early December, a gypsy moth egg mass survey was conducted at 102 host sites on a 7-mile grid throughout Connecticut. Gypsy moth egg masses were found at 26 sites in 7 counties. There were no sites where egg masses were found in numbers large enough to be considered a potential problem for 2002.

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. Mass releases were made at three new sites in Hartford, Middlesex, and Windham Counties. In addition, beetles were released on hemlocks on the Mashantucket Pequot Nation tribal lands. Approximately 147,000 beetles have been released in 21 sites in Connecticut since 1995. Dr. McClure's research indicates that winter temperatures of minus 5° Fahrenheit play a critical role in the overwintering survival of the adelgid. Unfortunately, unlike the winter of 1999–2000, there were no extremely low temperatures during the winter of 2000–2001. The adelgid was able to survive in larger numbers than the previous winter, with mortality rates of about 50 percent in northern Connecticut and 36 percent at southern sites. Sampling at beetle release sites verified both adult and larval beetle survival.

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 Connecticut 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 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.

During 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. 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 of the transportation of solid wood packing material on ships coming from areas in the world where this beetle is found. 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 moths. During early May, a series of unseasonably hot days in the high 80's were followed by a temperature plunge below freezing. Oaks were particularly affected by this sudden temperature fluctuation. New foliage in the Windham area of the State turned brown and died. This freeze may have been a stress factor that allowed the orange-striped oakworm to become abundant. In 2001, an aerial survey indicated that 2,300 acres of defoliation had occurred on oak in Windham County.

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.

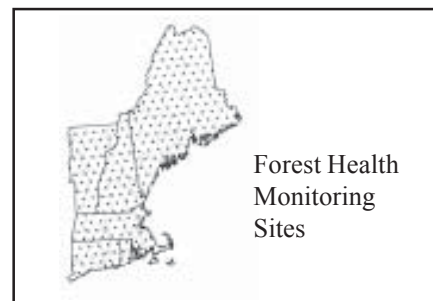
The **European pine shoot beetle**, was first discovered in Ohio in 1992. Infested trees have been found in nine States and Canada. Adult beetles have been identified in Vermont, New Hampshire, and Maine. Surveys at Christmas tree farms and the examination of cut Christmas trees shipped into Connecticut from States where this beetle is found 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 12 years. In 2000, 95 percent of trees greater than 5 inches diameter had normal crown fullness, about 85 percent had little or no crown dieback, and 70 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.

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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