

## Connecticut

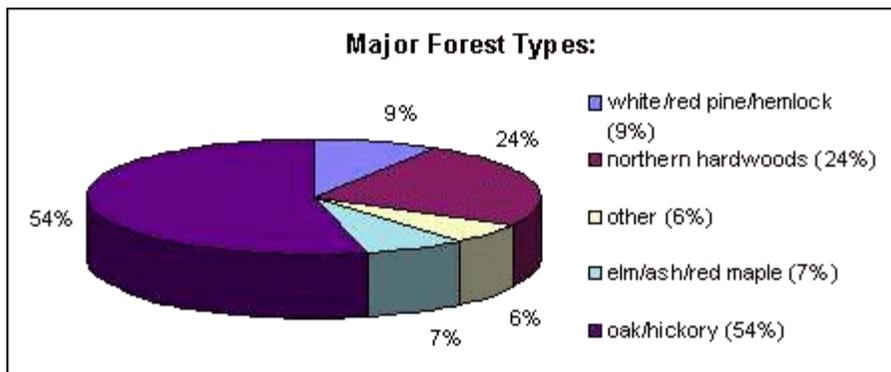
### The Resource

Connecticut's forests are 85% privately owned and made up of mostly of 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:

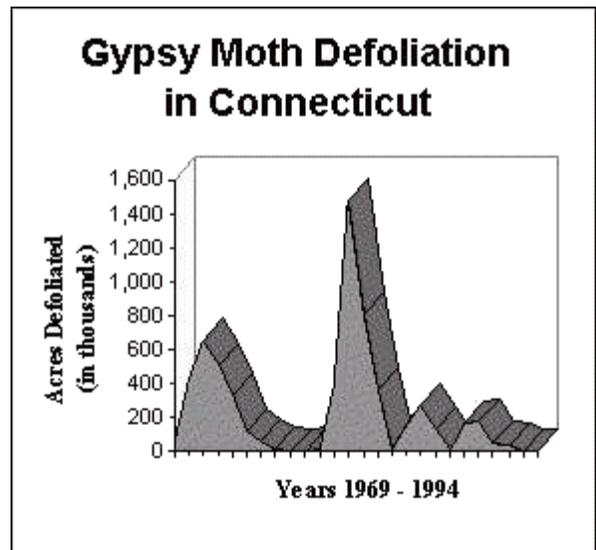
- 97.3% timberland
- 2.7% non commercial or reserved forestland



### Special Issues

The majority of hemlocks, *Tsuga canadensis*, in Connecticut are in a state of decline and often heavily infested by scale and adelgid. The hemlock has also been severely stressed by droughts during the last two summers. The **hemlock woolly adelgid**, *Adelges tsugae*, has slowly spread its way northward throughout Connecticut, since its first occurrence along the coast in 1985. It now occurs in 147 of 169 towns, often in association with infestations of elongate hemlock scale, *Fiorinia externa*, in both suburban and forested areas. When the adelgid feeds on the young twigs, hemlocks quickly lose their vigor and foliage turns a gray-green color and drops from desiccation. Several potential hemlock woolly adelgid parasites and predators are being evaluated.

During the past two years, no **gypsy moth** defoliation has occurred in the state. The last time the state was free of gypsy moth defoliation was during the summer of 1977. A pathogenic fungus, *Entomophaga maimaiga*, appears to again be responsible for suppressing gypsy moth. No defoliation was detected during the first week of July during the statewide gypsy moth aerial survey. However, male adult gypsy moths were much more visible in 1994 than at anytime in the last five years and large numbers of egg masses were seen in southwestern Connecticut. Hot dry springs, and increased gypsy moth activity in that part of the state, have been the catalyst behind previous gypsy



moth outbreaks.

**Dogwood Anthracnose**, caused by the fungus *Discula destructiva* was again responsible for high levels of leaf, twig, and branch blight in native dogwood, *Cornus florida*. This fungus was first observed in Connecticut in the late 1970s. Drought stress in early June was responsible for these high levels of anthracnose. In addition, high levels of powdery mildew infested dogwoods last summer. Infected leaves and flower bracts are characterized by tan, circular leafspots surrounded by purple borders in mid to late May and frequently develop necrotic veins and leaf margins. Ragged blighted leaves often remain attached to the tree throughout the winter. As the disease progresses twigs and branches become infected and die back. Although anthracnose levels were high in 1994, there was no mortality of dogwoods in Connecticut last year.

## Other Issues

Butternut Canker, *Sirococcus clavigignenti-juglandacearum*, is caused by a fungus that was first discovered in 1967 and has quickly spread throughout the northern states, causing rapid deterioration in the butternut. The fungus infects young twigs and rapidly kills the bark.

About ten percent of trees sampled in the state were confirmed positive for butternut canker. There is no known cure for this disease and scientists are looking for resistant trees that may exist in the native butternut population.

The **pear thrips**, *Taeniothrips inconsequens*, became a serious pest of sugar maple, *Acer saccharum*, during the late 1980's in Connecticut. Reports indicate an increase on the thrips population possibly due to the heavy sugar maple flowering in 1994. However, it is not possible to predict the impact this increased population will have on sugar maples in Connecticut in 1995.

An Asian fungus, *Cryphonectria parasitica*, was first discovered in the Bronx Zoo in New York in 1904. By 1920, **chestnut blight** had killed or fully infected almost all mature chestnut trees, *Castanea dentata*, in Connecticut. These formerly important hardwood trees, have been reduced to understory shrubs that sprout from tree stumps, become infected, die back, and sprout again.

"Hypovirulent strains" of the fungus (that are infected with a virus) were introduced from Italy in 1972 to control chestnut blight. These strains work well in inoculated trees in an orchard situation, but the virus spreads too slowly to protect forest trees. A genetically-engineered hypovirulent strain of the fungus is currently being tested.

As Robert Frost prophesied in 1932 in a poem called "Evil Tendencies Cancel,":

*Will the blight end the chestnut?  
The farmers rather guess not*

*It keeps smoldering at the roots  
And sending up new shoots  
Till another parasite  
Shall come to end the blight*

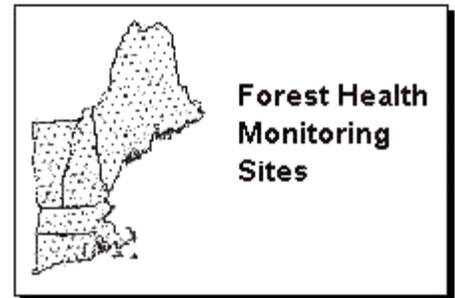
The **pine shoot beetle**, *Tomicus piniperda*, is a newly introduced pest found near the eastern Great Lakes. It is primarily affecting Christmas tree plantations in those areas. Surveys indicate that the beetle is not present in the State of Connecticut, and is not currently a threat to growers in the state.

## **Regional Surveys**

Interest in regional forest conditions prompted the implementation of the National Forest Health Monitoring Program and the North American Maple Project.

## **FOREST HEALTH MONITORING PROGRAM**

The objective is to assess trend 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 5 years. In 1994, 99 percent of trees greater than 5 inches diameter had normal crown fullness. About 96 percent of the trees had little or no crown dieback, and 78 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 there are concerns for individual species such as ash, butternut and hemlock due to various damage agents.



## **NORTH AMERICAN MAPLE PROJECT**

This cooperative project with Canada was initiated in 1988 to look at change in sugar maple tree condition. There are several states in the Northeast involved including New York, New Hampshire, Vermont, Maine, and Massachusetts. Overall, sugar maple located within the sample sites are in good condition. Periodically, insect defoliation has affected crown condition in some areas. There was little difference found between sugarbush and non sugarbush stands.

## **For More Information**

CT Agric. Experimental Station  
P.O. Box 1106  
123 Huntington Street  
New Haven, CT 06504-1106

(203) 789-7236

Forest Health Protection  
USDA Forest Service  
P.O. Box 640  
Durham, NH 03824

(603) 868-7709