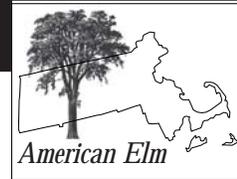


# 2003 Forest Health Highlights

## Massachusetts



January 2004

### The Resource

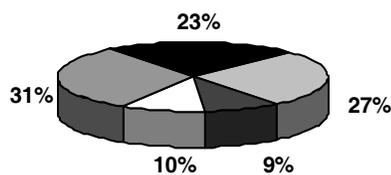
The forest resource of Massachusetts has great demands placed on it. Although Massachusetts is thought of as an urban State, 64 percent of the land area is forested. This forested area is managed for a multitude of purposes, including recreation, water quality, wildlife habitat, and a forest product industry.

- **64% of the State is forested (3,225,000 acres)**

#### Of the forested area:

- **90.8% timberland**
- **9.2% noncommercial or reserved forest land**

#### Major Forest Types:



- w hite/red pine/hemlock (27%)
- oak/pine (9%)
- other (10%)
- oak/hickory (31%)
- northern hardwoods (23%)

### Special Issues

The overall health of the urban and rural forests of Massachusetts is good. However, there are some concerns about the impact on the forest resource from native and introduced forest diseases and insect pests. The level of damage from these pests often varies from year to year, depending on weather and other factors.

**Hemlock woolly adelgid**, an introduced insect, caused much concern in 2003. This year seven new communities in Massachusetts were identified as having their first infestations, bringing the total of infested communities to 170. During the annual aerial forest damage survey, 274 acres of hemlock decline and mortality were observed. The State continues to participate in the release of the predatory ladybird beetle *Pseudoscymnus tsugae* in an attempt to control hemlock woolly adelgid with biological controls. There are currently 11 release sites in Massachusetts, with the most recent sites in southern Berkshire County.

Two new records of insect activity in Massachusetts were documented in 2003. The first was the heavy defoliation on 2,102 acres caused by **forest tent caterpillar**. The most severe defoliation occurred in southeastern Massachusetts in the Freetown area, with spotty defoliation extending north to the Easton area.

The second new record was the defoliation of 24,423 acres caused by the **winter moth** (*Operophtera brumata*). This defoliation occurred in coastal Massachusetts, from the Cape Cod Canal north to the Blue Hills (an area just south of Boston) and on Cape Ann on the North Shore. All of this area has experienced defoliation for the past several years, with the **fall cankerworm** and **bruce spanworm** being suspected as the cause. In December, adult winter moths were positively identified by Cornell University. Based on reports received in November and December, defoliation will continue, with the infested area extending further south onto Cape Cod.

**Gypsy moth** defoliation has been down considerably in both acreage and the severity of defoliation the past few years, with no defoliation documented in the 2003 aerial survey. The population collapse in all areas was caused by a fungus, *Entomophaga maimaiga*, that infects gypsy moth caterpillars.

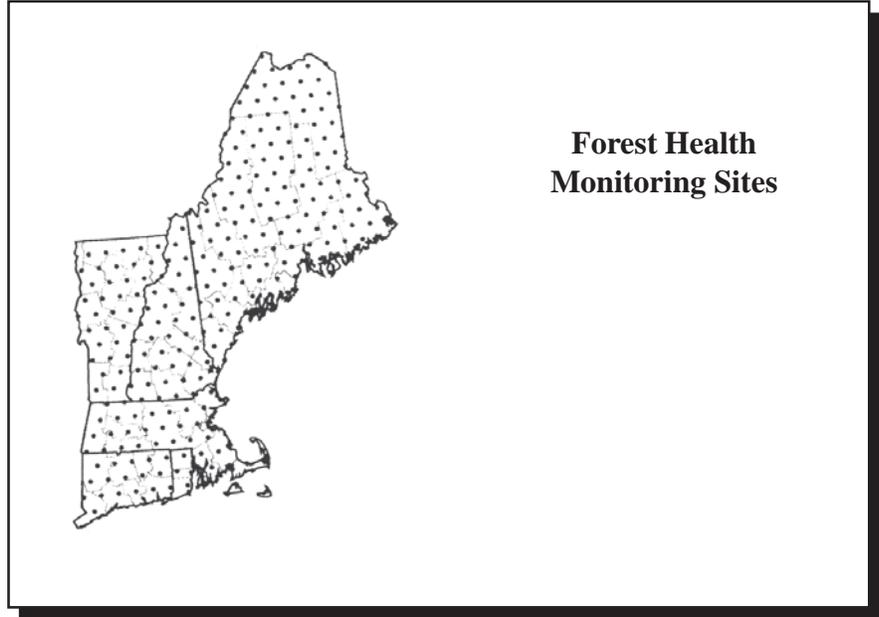
## Regional Surveys

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

### National Forest Health Monitoring Program

The program's objective 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 14 years, with about 95 percent of trees greater than 5 inches diameter having normal crown fullness, 85 percent with little or no crown dieback, and over 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 there are concerns for individual species such as ash, butternut, and hemlock due to various damage agents.



### For More Information



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