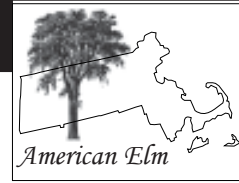


2004 Forest Health Highlights

Massachusetts



January 2005

The Resource

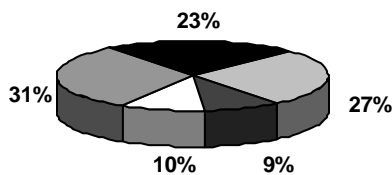
The forest resource of Massachusetts has great demands placed on it. Although Massachusetts is thought of as an urban State, 64 percent of the land area is forested. This forested area is managed for a multitude of purposes, including recreation, water quality, wildlife habitat, and a forest product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

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

Out 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.

The extreme and prolonged cold experienced during January 2004 resulted in winter mortality of the **hemlock woolly adelgid** population of between 86 and 100 percent at the sites surveyed. Despite this high mortality, new adelgid infestations continue to be discovered. This year the presence of the adelgid was confirmed in six new communities. With these new discoveries approximately 50 of the communities in the Commonwealth are known to have adelgid infestations. Work continues on biological controls, using predatory insects. Presently, approximately 65,000 lady bird beetles *Sasajiscymnus tsugae* (formerly *Pseudoscymnus tsugae*) have been released and, for the first time in Massachusetts, a release of another predatory beetle (*Laricobius nigrinus*) took place in Holyoke in cooperation with Virginia Tech and the University of Massachusetts. This toothed-necked fungus beetle was imported from Europe to Oregon, where it has become a serious predator of the balsam woolly adelgid and has been observed feeding on hemlock woolly adelgid there.

Pitch pine in the Plymouth area (11,500 acres) received considerable damage from **pine needle miner**. Damage was also documented on 500 acres from the Nantucket pine tip moth in Plymouth and Barnstable Counties. In western Massachusetts, **red pine scale** continues to spread slowly in Hampshire County.

In spring 2004, approximately 45,000 acres in southeastern Massachusetts experienced heavy defoliation from the **forest tent caterpillar**. This is the second season of heavy defoliation and, as a result, many of the oak trees are beginning to show signs of stress. In the southeastern part of the State, **gypsy moth** increased, causing 35,000 acres of defoliation. In many cases both the forest tent caterpillar and the gypsy moth could be found in the same stands.

Special Issues cont.

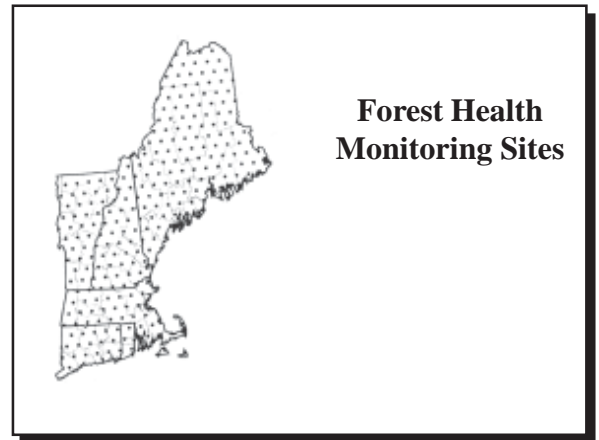
The **winter moth** caused extensive defoliation early in the 2004 growing season. The infestation on Cape Ann has spread very little in area, whereas in the south shore area it continues to expand and the insect can now be found on Cape Cod as far out as Orleans. A total of 34,000 acres of defoliation was mapped during the annual aerial survey.

Efforts by the USDA Forest Service and the University of Massachusetts to find a biological control for the winter moth are making slow but steady progress. At the present time one parasite has been identified and enough insects to start rearing them have been received from Nova Scotia; additional insects for rearing are expected to be received from Victoria, British Columbia, in the spring.

Regional Survey

National Forest Health Monitoring Program

In cooperation with the USDA Forest Service, Massachusetts participates in the 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. Plot and general survey data are collected annually. Plot results indicate that there has been minimal change in crown condition in the last 15 years, with 95 percent of trees greater than 5 inches diameter having normal crown fullness, about 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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