

2005 Forest Health Highlights

Massachusetts



January 2006

The Resource

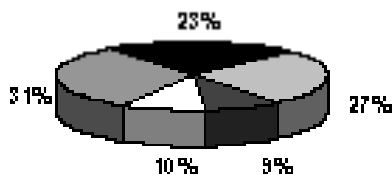
The forest resource of Massachusetts has great demands placed on it. Although Massachusetts is thought of as an urban State, 64 percent of the land area is forested. This forested area is managed for a multitude of purposes, including recreation, water quality, wildlife habitat, and a forest product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



- white/red pine/elmlock (27%)
- oak/pine (9%)
- other (10%)
- oak/blackoak (31%)
- northern hardwoods (23%)

Special Issues

The total defoliation experienced by Massachusetts' forests proved that 2005 was truly the "year of the caterpillar". The **forest tent caterpillar** defoliation totaled 204,616 acres, a nearly five fold increase over 2004. This defoliation not only increased in acreage but also in the geographic distribution, with severe defoliation being documented in Berkshire and Franklin Counties. The **gypsy moth** caterpillars continue to cause defoliation, with 36,771 acres affected in Norfolk, Bristol and Plymouth Counties. Ground surveys Statewide indicate an increasing population in Norfolk, Hampden, and Hampshire Counties. In many instances both the gypsy moth and forest tent caterpillars can be found causing defoliation in the same stands.

The **winter moth** continues to cause severe defoliation in Eastern Massachusetts. In addition to the heavy defoliation documented on Cape Ann and in the Southeastern parts of the state, scattered defoliation has been reported in most communities inside the Route 495 beltway. Pheromone trap surveys conducted by the University of Massachusetts have documented isolated infestation in the New Bedford area and into Rhode Island. The efforts to develop a biological control have been successful with the release of 300 parasitic flies, *Cyzenis albicans*, in the Town of Hingham. Rearing and release of this parasite will continue in 2006 and beyond if funding is obtained. Even with increased releases, it is estimated that it will be 2010 before this parasite can reach high enough numbers to control the increasing winter moth population.

Pitch pine in Plymouth and Barnstable Counties continue to be defoliated by **pine needle miner**, with approximately 22,500 acres of damage being identified during the State annual aerial survey. In western Massachusetts, red pine scale continues to spread slowly in Hampshire County.

As a result of bark beetle surveys conducted in cooperation with the USDA Forest Service, an **ambrosia beetle** (*Xyleborus seriatius*) was discovered for the first time in North America. This beetle was trapped in Southboro, Hopkinton, Stow, Sterling and Erving. This beetle, a native of Japan, is not believed to be a threat to the North American forest resource.

Special Issues cont.

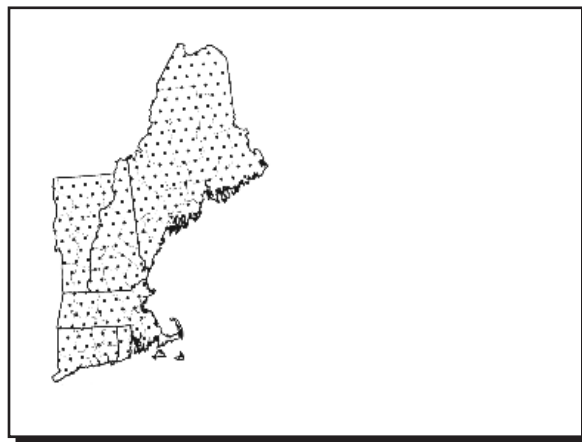
Although no new communities were identified as being infested with **hemlock woolly adelgid**, this insect continues to be a major threat to the hemlock resource. Field observations in several areas indicate the population is beginning to rebound from the mortality experienced in 2004. We continue to work with the USDA Forest Service on biological controls and plan to make a second release of the predatory beetle, *Laricobius nigrinus*, in the fall of 2005.

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. A healthy forest is defined as having the capacity for renewal, for recovery from a wide range of disturbances, and for retention of its ecological resiliency.

The overall health of the forests in New England is good, with various damage agents present at different times and locations. Results from permanent sample sites indicate that there has been minimal change in crown condition in recent years. There are varying impacts from forest fragmentation, drought, fire, insects, and pathogens. The most significant pests are those that have arrived from other parts of the world, such as the gypsy moth, beech bark disease, and hemlock woolly adelgid. A summary report of *Forest Health Monitoring in the Northeastern United States* can be found at <http://fhm.fs.fed.us>.



For More Information



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