2005 Forest Health Highlights

New Hampshire

White Birch

January 2006

The Resource

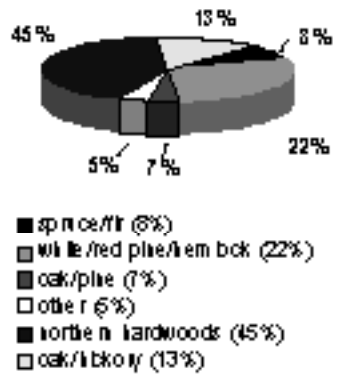
New Hampshire's forests provide a wide variety of goods and services to an ever-increasing number of residents and visitors. These forests offer pleasant surroundings for outdoor recreational pursuits, critical habitat for wildlife, and countless goods to serve our daily needs, such as paper products and shelter. The also act as a giant sponge to absorb and cleanse our water supply. Keeping New Hampshire's forests healthy provides a positive quality of life that is important to those who live, work, and recreate in the State.

• 84% of the State is forested (4,800,000 acres)

Out of the forested area:

- **94% timberland**
- **6% noncommercial or reserved forest land**

Major Forest Types:



Special Issues

Forest health surveys are conducted annually on the forest land within the State. The State and Federal lands, along with private lands, are monitored to determine the incidence and extent of forest damage caused by a variety of insect pests and tree diseases. Several native insects have caused damage to forest trees in several location. There are also specific concerns regarding nonnative pests that can cause the greatest threat to the State's forest resource.

The leading forest health concern in 2005 was the increase in acreage of serious defoliation from **forest tent caterpillar**. In 2005, more than 60,000 acres was defoliated in Sullivan County and surrounding areas. This was a five-fold increase from the previous year. Trap catches and eggmass counts suggest similar damage in 2006.

There was also noticeable defoliation caused by **eastern tent caterpillar**, **gypsy moth**, **tar spot**, and **anthracnose pathogens**. Other active insects were **pine needle miner** in Ossipee and **Lecanium scale** throughout the sugar maple region. **Hemlock borer** continues to kill approximately 300 acres of hemlock each year. These sites are usually stressed from previous droughts or root compaction.

The annual aerial survey conducted by the Division of Forests and Lands and the USDA Forest Service mapped over 209,000 acres of serious forest damage. The majority of that acreage was the **forest tent calterpillar** defoliation and **bark beetle damage associated with birch decline** in the White Mountain National Forest.

Statewide, surveys were conducted in several major cities looking for **emerald ash borer**. Emerald ash borer is a new threat, not yet discovered in New Hampshire, that attacks and kills ash trees within a few years of infestation. Trap tree surveys were also conducted in State parks since a major pathway for movement of this insect has been firewood.

Special Issues cont.

Balsam woolly adelgid continues to damage balsam fir throughout its range below 2,000 feet elevation. New reports of damage above 2,000 feet in the White Mountains will be studied in 2006.

Surveys to determine the presence of ***Phytophthora ramorum,*** the cause of sudden oak death, and **Asian longhorned beetle** continued in 2005 and turned up no positive finds. Sudden oak death is a nonnative disease that has the potential to move into the State on nursery stock from infected areas.

In 2004, several nurseries received hemlock trees infested with **Hemlock woolly adelgid**; 662 of these trees were planted at over 100 sites in 60 towns. In 2005, 415 of these trees remain planted due to a lack of evidence of infestation. The Division of Forests and Lands has resurveyed 246 of these trees at 78 sites and has not found the adelgid.

Regional Surveys

National Forest Health Monitoring Program

In cooperation with the USDA Forest Service, New Hampshire 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 site locations indicate that there has been minimal change in crown condition in recent years. There are varying impacts from forest fragmentation, drought, fire,

The most significant pests are those that have arrived here 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

Forest Health Monitoring Sites

For More Information:

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State and Private Forestry