

2004 Forest Health Highlights

New York



January 2005

The Resource

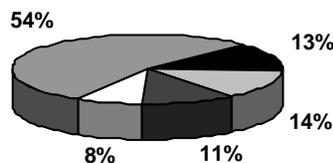
New York's forests provide a recreational base for millions of New Yorkers and others visiting the State's scenic regions. Forests are also productive in timber, providing employment to 2 percent of the State's workforce. The manufacture of wood products provides \$2.4 billion annually to the State's economy.

•62% of the State is forested
(18,641,300 acres)

Out of the forested area:

- 82.6% timberland
- 17.4% noncommercial or reserved forest land (data unpublished)

Major Forest Types:



- white/red pine/hemlock (13%)
- oak/hickory (14%)
- other (11%)
- elm/ash/red maple (8%)
- northern hardwoods (54%)

Special Issues

The year 2004 may be remembered as the year of the defoliator in New York. Every region of the State experienced at least some significant defoliation from a number of pests, both native and exotic. In many areas more than one insect was active concurrently, making it difficult to determine which was most responsible for the majority of damage that totaled tens of thousands of acres statewide. However, the most commonly noted defoliators were **forest tent caterpillar**, **gypsy moth**, **fall cankerworm**, **locust leafminer**, and **eastern tent caterpillar**.

If anything could overshadow the defoliation events, it was the State's first-ever survey for *Phytophthora ramorum*, the pathogen occurring on the west coast that causes **sudden oak death**. Aside from the 23 planned surveys, which resulted in zero positive tests for *P. ramorum*, there was a very publicized positive test result from Oyster Bay, Long Island. This site was first examined after a private contractor from California claimed to have found sudden oak death there. A team of experts from a number of State and Federal agencies surveyed the site intensely. Though these surveys produced one positive PCR laboratory test, that result has been cast into doubt by the scores of further tests that have all come up negative, including more than 60 from a single canker on one tree. It is the feeling of New York State's forest health staff, and all of the experts we have consulted with, that the initial positive was most likely a false result, and that New York is still free of *P. ramorum*.

Nonnative insects are still a major concern within the State. Among the most troublesome introductions is the **Asian longhorned beetle**, which was discovered in Brooklyn and on Long Island during the summer of 1996 and has the potential to cause billions of dollars of damage. Since then, other infestations were discovered in Queens, Manhattan, Bayside, and Islip. A quarantine is in effect encompassing all known infested areas, and all known infested trees are chipped or burned in an effort to eradicate the pest. Over 7,000 infested or suspected trees have been destroyed to date. Hardwoods are the preferred hosts of this insect, especially maples. In a continued effort to eradicate the insect, surveys continue around the perimeter of the known infestation to identify newly infested trees for removal. Tree planting continues in an attempt to provide greenery in neighborhoods as the infested trees are destroyed. Other infestations have been found in Chicago, New Jersey, and Ontario. The U.S. Department of Agriculture has put restrictions on the use of untreated wood as packing material or dunnage, in an attempt to curtail further introductions of the beetle. Inspections are conducted nationwide for the beetle and other exotic pests at ports engaged in international trade.



Hemlock woolly adelgid, another introduced pest, continues to cause damage to native forest and ornamental eastern hemlock trees. Ground surveys indicated that the distribution of this insect spread very little in 2004. No new county records were recorded. Overwintering mortality may have been a significant factor again. Within the adelgid's range, damage is most severe in areas that have been infested for several years. In some areas, such as Westchester County, a majority of the trees are infested and many of those are in declining health or dead. Pockets of hemlock mortality can be seen from the air in infested areas.

Since 1999 New York has cooperated with the USDA Forest Service to introduce a predatory beetle (*Sasajiscymnus tsugae*) in selected stands in an effort to control the adelgid population. New York State has now released more than 30,000 predator beetles at a total of 11 sites across the hemlock woolly adelgid infested counties. Predator beetle and adelgid populations are monitored at each site for 3 years following the release. The results of this monitoring to date have been mixed and indicate that the beetles may not have successfully established at some locations, while at other locations they have successfully reproduced for multiple generations and seem to be keeping adelgid density tolerably low. It is hoped that a combination of native and exotic predators will effectively control hemlock woolly adelgid in the future.

The health of hemlock in southeastern New York is further impacted by the presence of two scale insects, the **elongate hemlock scale** and the **circular hemlock scale**. Infestation by scale insects in

concert with the hemlock woolly adelgid cause a much more rapid decline in tree health. A fungal pathogen of hemlock scales was discovered at Mianus River Gorge Preserve in 2001 and has now been found in several other New York locations as well as in Pennsylvania and Connecticut. More research is needed about the potential distribution or impact of this pathogen; New York is partnering with University of Vermont scientists in an ongoing research effort. Early evidence suggest there may be more than one fungal species at work.

In the early 1990s, the newly introduced **common pine shoot beetle** was discovered infesting pine plantations around the Great Lakes. The beetle is primarily a problem in pine Christmas tree plantations. First found in western New York in 1993, the insect now occurs across most of the State. The number of New York counties where this pest has been found increased to 47 in 2004. The new counties are (from south to north) Rensselaer, Washington, Warren, Clinton, and Essex. In general, New York State has not experienced as high a severity of damage from this insect as has been reported from some other locations. The areas where the insect has been found are under a Federal quarantine in an attempt to reduce spread, as it is still a pest of high concern.

The year 2004 marked the third year of annualized plot data collection in New York by the USDA Forest Service, Forest Inventory and Analysis Program. Data will be collected and analyzed on a rotating basis, with approximately one-fifth of the plots being visited each year. A subset of these plots are co-located Forest Health Monitoring plots, as the two national programs have merged. Plot and additional aerial survey and ground data, collected by NY DEC personnel, are collected to assess the condition of the forest resource in the State.

For More Information

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