

# 2002 Forest Health Highlights

## New York



January 2003

### The Resource

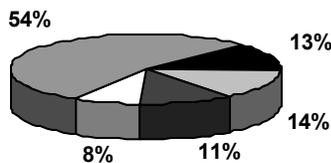
New York's forests provide a recreational base for millions of New Yorkers and others visiting the State's scenic regions. Forests are also productive in timber, providing employment to 2 percent of the State's workforce. The manufacture of wood products provides \$2.4 billion annually to the State's 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- 17.4% noncommercial or reserved forest land (data unpublished)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

**Drought** was again a major factor in forest health for many areas of the State in 2002. After a wet spring in places, precipitation fell 2 to 6 inches below average during the summer. As a result, discoloration, branch flagging, and some mortality was observed for various tree species, especially along ridge tops. The dry conditions almost certainly exacerbated the effects of pest and disease problems.

Exotic pests are still a major concern within the State. Among the 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. Many of the trees in these areas appear to have been infested for several years. 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 removed. An infestation was also discovered in Chicago and, like the New York infestation, is thought to have originated on solid wood packing materials from China. 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. The recent discovery of infested trees in nearby Jersey City, New Jersey, has only heightened concern about Asian longhorned beetle in New York and the nation.



The incidence of the **European gypsy moth** in most of New York has been relatively low in recent years, partially due to a fungus, *Entomophaga maimaga*, which attacks the larvae and helps to keep populations low. About 7,000 acres of moderate to severe gypsy moth defoliation was observed in 2002, a marked decrease in acreage from the previous year. Some oaks on Long Island that re-foliated after gypsy moth defoliation suffered a second defoliation by **orange-striped oakworm**, a late-season defoliator that has defoliated some areas there for at least 3 successive years.

With the exception of the gypsy moth, the summer of 2002 saw relatively little severe damage caused by defoliating insects. However, there were some isolated occurrences of **forest tent caterpillar**, **eastern tent caterpillar**, **pine false webworm**, **spruce budworm**, and **fall webworm** that caused slight to moderate damage.

## Special Issues cont.

The exotic disease **dogwood anthracnose** is known to infect dogwood in 30 different counties in New York. The disease causes damage to flowering dogwood in both forested and urban/ornamental locations.

Another introduced pest, the **hemlock woolly adelgid**, continues to cause damage to native forest and ornamental eastern hemlock trees. Ground surveys indicated that the distribution of this insect spread significantly in 2002, entering 13 new townships and two new counties (Delaware and Monroe). Damage is most severe in areas that have been infested for several years. In some areas 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 (*Pseudoscymnus tsugae*) in selected stands in an effort to control the adelgid population. New York State has released a total of 27,500 predator beetles at 8 sites across 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. An unnamed fungal pathogen of hemlock scales was discovered at Mianus River Gorge Preserve in 2001, and has now been found in two New York counties and one Connecticut county.

In the early 1990's, the **European 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. A total of 35 counties are now known to be infested, stretching from the western tip of the State to the western Adirondacks. Fulton, Herkimer, and Schoharie Counties were found to be infested in 2002. The areas where the insect has been found are under a Federal quarantine in an attempt to reduce its spread.

## Stewardship

Among the several State programs that contribute to forest health improvement, the stewardship program has the potential to reach a large number of forest landowners. All forest management plans prepared under the stewardship program include a forest protection component. The planning process helps alert forest landowners to potential and existing forest health conditions and procedures to protect forest resources.

## Regional Surveys

The year 2002 marked the beginning of annualized plot data collection in New York by the **National Forest Inventory and Analysis Program**. Data will be collected and analyzed in 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** (also known as "Phase 3") plots, as the two national programs have merged.

### For More Information

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