

2003 Forest Health Highlights

New York



January 2004

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.

Special Issues

Although 2003 offered a wetter growing season the previous years in many parts of New York, effects of **drought** from 2001 and 2002 were noticeable on a variety of species. Impacts ranged from slowed growth, to weakened resistance, to secondary pests (such as *Ips* spp. in red pine plantations and hickory bark beetles in hardwood stands with a hickory component), to mortality of severely stressed trees (such as American beech with beech bark disease).

Exotic pests are still a major concern within the State. Among the most troublesome introductions is the **Asian longhorned beetle**, which was discovered in 1996 and has the potential to cause billions of dollars of damage. Infestations have been discovered in Manhattan, Brooklyn, Queens, Bayside, Islip, and other locations on Long Island. A Federal quarantine encompassing all known infested areas is in effect. Several new infested locations were found in 2003; however, all were within the quarantine area. The total number of infested trees found in New York since 1996 now exceeds 6,000; almost all have been removed in an effort to eradicate the insect. Surveys continue around the perimeter of the known infestations to identify newly infested trees for removal. Tree planting continues in an attempt to provide greenery in neighborhoods as the infested trees are removed. Infestations have also been discovered in Chicago and in nearby Jersey City, New Jersey.



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 maimaiga*, that attacks the larvae. Gypsy moth defoliation remained relatively low in 2003. An estimated 200 acres were defoliated in Suffolk County.

About 30,000 acres of mixed hardwood species were moderately to severely defoliated by a complex of **eastern tent caterpillar**, **forest tent caterpillar**, and **maple anthracnose** in St. Lawrence County. Informal assessments of egg mass population densities and anthracnose prevalence suggest that significant defoliation and tree mortality should be expected in some areas in 2004.

Defoliation by **orange-striped oakworm** on Long Island was severe for the fourth consecutive year. An estimated 2,000 acres of State land centered around the Otis Pike Preserve near Calverton had defoliation, much of it severe, following early spring defoliation by gypsy moth and further damage by oak anthracnose. Many of these areas could see extensive patches of tree mortality in 2004. Severe defoliation was also observed on Federal, county, and private lands in the adjacent area.

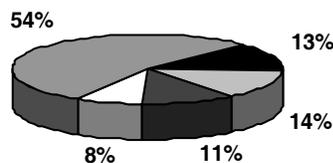
Infestations of bark beetles, including the **hickory bark beetle** in the Finger Lakes, ***Ips* beetles** in red pine plantations in the southern tier, and **red turpentine beetle** in pitch pine stands on Long Island have led to significant local mortality.

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

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 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 and mortality to native forest and ornamental eastern hemlock trees. Ground surveys indicated that the distribution of this insect did not spread as significantly as it had the previous year. The adelgid was found in Albany County for the first time in 2003, and several new townships were discovered in counties with known infestations. In Rochester, more than 200 miles from the nearest natural infestation, two additional infested sites associated with planted stock were found and can hopefully be eradicated. 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.

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**. The elongate hemlock scale was observed for the first time in Monroe County. Infestation by scale insects in concert with the hemlock woolly adelgid causes a much more rapid decline in tree health. No new occurrences of an unnamed fungal pathogen of hemlock scales have been discovered.

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. The number of New York counties where this pest has been found increased to 42 this year, including new finds in Sullivan, Greene, Albany, Schenectady, Montgomery, Saratoga, and Hamilton Counties. 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. This is still a pest of high concern however, because of the impact of the Federal quarantine on New York's timber industry.

Anthracnose diseases on various hardwoods, including sycamore, maple, oak and ash, were prevalent in 2003, following an unusually wet spring. **Tar spot** of maple was also very common, especially in urban and suburban areas. **Salt damage** to roadside conifers, especially eastern white pine, was observed following the harsh winter of 2002–2003. In April, a **spring snowstorm** caused light to moderate damage across a 1.2 million-acre area and heavy damage on another half a million acres in Monroe, Wayne, and Cayuga Counties.

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 2003 was the second year 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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