

2001 Forest Health Highlights

New York



The Resource

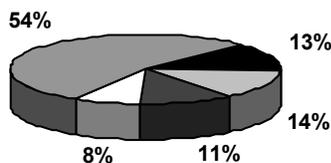
New York's forests provide a recreational base for millions of New Yorkers and others visiting the State's scenic regions. Forests are also productive in timber, providing employment to 2 percent of the workforce. The manufacture of wood products provides \$2.4 billion annually to the State's economy.

• **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(data unpublished)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:



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

Special Issues

Drought was a major factor in forest health for many areas of the State in 2001. The DEC Division of Water has the State divided into eight drought regions. According to the Palmer Drought Index, three of these regions underwent mild drought, three experienced moderate drought, one severe drought (Southern Tier), and one extreme drought (Great Lakes). 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 where they existed.

Exotic pests are still a major concern within the State. The most recent introduction is the **Asian longhorned beetle**, which was discovered in Brooklyn and on Long Island during the summer of 1996. 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 infested area to identify newly infested trees for removal. Tree planting continues in an attempt to provide greenery in neighborhoods as infested trees are removed. An infestation has also been 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.



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 32 counties are now known to be infested, stretching from the western tip of the State to the western Adirondacks. The infested areas are under a Federal quarantine in an attempt to reduce spread of the insect.

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. However, an estimated 50,000 acres suffered moderate to severe defoliation in 2001. By far the most severe damage was in southeastern New York, especially on Long Island where some residents called 2001 the worst gypsy moth year ever. Many oaks that refoliated after gypsy moth defoliation suffered a second defoliation by **orange-striped oakworm**.

Special Issues cont.

Another introduced pest, the **hemlock woolly adelgid**, continues to cause damage to native and ornamental eastern hemlock trees. Ground surveys along the infestation front indicate that the adelgid did not spread as far as expected in 2001. 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. Pockets of hemlock mortality in infested areas can be seen from the air.

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. The State released 22,500 predator beetles at 7 sites across the hemlock woolly adelgid infested counties. Predator beetle and adelgid populations are monitored at each site for 3 years following release. Results have been mixed and indicate that the beetles may not have been successfully established at some locations. It is hoped that a combination of native and exotic predators will effectively control the 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.

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.

With the exception of the gypsy moth, the summer of 2001 saw relatively little severe damage caused by defoliating insects.

There were isolated outbreaks of **forest tent caterpillar**, **pine false webworm**, **spruce budworm**, and **fall webworm**, causing slight to moderate damage.

Four years after the **ice storm of 1998**, the forests of northern New York continue to recover. Damage is still noticeable in some areas. Federal appropriations provided grants and, in partnership with the DEC, technical assistance to over 40 ice-damaged communities in the North Country. Trees were inventoried, management plans prepared, and workshops provided on tree planting and care. Trees are being planted and replaced with improved techniques, and more consideration is given to species and site. Planting the "right tree in the right place," known to be effective in the avoidance of future problems, has been an integral part of the reforestation effort. Better planning, monitoring, and a more proactive approach should promote an improvement in urban forest health.

Federally funded research projects studying the effects of the ice storm on the forest ecosystem have just completed the third year of data collection. Results were made available to foresters and land managers at a conference in Syracuse in March 2001.

Stewardship

Among the several NY DEC 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. This program also continues to help landowners recover from the 1998 ice storm.

Regional Surveys

2001 marked the third year of New York's participation in the **National Forest Health Monitoring Program**, which began in New England in 1990. Permanent plots have been established statewide that will be visited on a rotating annual basis to assess the condition of the forest resource. **The National Forest Inventory & Analysis Program** is expected to begin annualized inventory of New York's forests in 2002 and will incorporate Forest Health Monitoring as the two programs merge.

For More Information

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