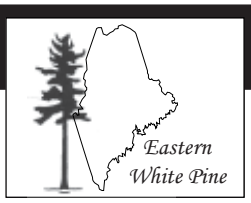
2001 Forest Health Highlights

Maine



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The Resource

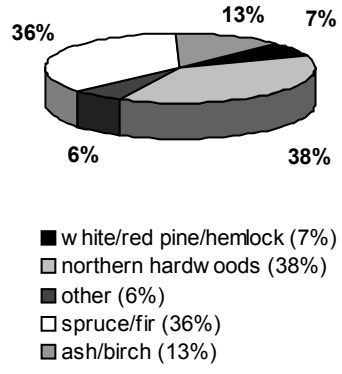
Maine's forests provide much of the raw materials to fuel its mills and serve as the backdrop for the recreation industry. These forest-based industries employ more than 12 percent of Maine's workforce and generate over 11 percent of the State's payroll. The overall annual contribution of the forest resource to Maine's economy exceeds $8.5 billion. The forests of the State also provide watershed, environmental, wildlife, and recreational benefits. Forested parks and individual shade trees provide similar amenities in urban and suburban settings.

90 % of the State is forested (17,689,000 acres)

Out of the forested area:

- **95.7% timberland**
- **4.3% noncommercial or reserved forest land**

Major Forest Types:



Special Issues

The need for long-term **forest inventory and monitoring** results continues to dominate forest health issues in Maine. Annual collection of Forest Inventory and Analysis data using a standard national plot design and core measurements is underway. The survey integrates the traditional forest inventory with the Forest Health Monitoring Program to assess forest condition, including trees, soils, lichens, and ozone bioindicator plants.

Most trees damaged by the **ice storm of 1998** now show significant recovery of affected crowns. Tree species that possess the ability to produce sprouts in damaged portions of their crowns displayed lush foliage in 2000 and were aided substantially by a moist spring and early summer. Species that have recovered best from significant crown loss in 1998 include white ash, red oak, and sugar maple. Trees that lost more than 75 percent of their total crown now have smaller, but apparently normal, crowns. Several other species, such as red maple and aspen species, show improved crowns but to a lesser degree. Softwood species that lost significant portions of their crown show little or no crown recovery. Also, several hardwood species such as birch and American beech apparently lack the ability to rebuild their crowns significantly through sprouts and show little recovery.

There are currently concerns over threats to the forests from recently introduced pests. The **hemlock woolly adelgid**, which is causing mortality of eastern hemlocks in the eastern United States, was inadvertently imported into Maine on a shipment of infested nursery stock in April 1999. Ninety percent of the trees have been removed, although most appeared to be uninfested. A statewide detection effort was launched and the adelgid was identified at 10 ornamental outplanting sites in central, coastal, and southern Maine in Penobscot, Hancock, Knox, Lincoln, Sagadahoc, and York Counties in 2000. In 2001, this pest was detected and eradication efforts were implemented at 15 sites in York, Penobscot, and Waldo Counties. Treated sites will be monitored for a period of 5 years. At this time the adelgid is not established on native hemlocks in Maine.

The **European pine shoot beetle,** a pest of pine**,** was recently discovered in northern New Hampshire, Vermont, and Quebec. One specimen of this beetle was collected for the first time in Maine in Oxford County during the spring 2000 trapping survey conducted in central and southern counties. Two beetles were trapped during the 2001 survey. No infested trees or damage were found during ground surveys. Oxford County was placed under an interim quarantine rule in July 2001 by the USDA Animal and Plant Health Inspection Service.

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Special Issues cont.

Another exotic pest, the **browntail moth,** continues to infest islands in Casco Bay and on the nearby mainland. The generally infested area extends from York to Hancock Counties; however, there has been a reduction in the total area affected. Spray projects were carried out in Brunswick and Portland to reduce populations of the caterpillar, which has hairs that cause serious skin rashes.

This is the second year that **European gypsy moth** populations increased in southern and central Maine, resulting in widespread defoliation of 29,365 acres of hardwood lands in 2001. Feeding was very intense in portions of York and Cumberland Counties, with heavy defoliation of sapling and pole-size white pine in many locations.

Other conifers with forest health problems in Maine include spruce, larch, and white pine. **Spruce** trees along the coast and offshore islands around Penobscot Bay continue to be impacted by spruce beetle and dwarf mistletoe. There are increased areas of **larch** decline and mortality, a result of larch beetle and defoliators attacking drought stressed trees. **Eastern white pine** stands in southwestern Maine have been exhibiting decline symptoms associated with previous drought stress.

The quarantine for **larch canker** is still in effect along coastal areas. **Butternut canker**, first reported in Maine in 1993, has now been located throughout the State, except Washington County.

In addition to annual pest surveys, **ongoing monitoring efforts** include evaluation of insect populations associated with various current forest management regimes. Cooperative forest health projects underway include reevaluation of forest regeneration in **spruce budworm** damaged stands within Baxter State Park and studies on the **yellowheaded spruce sawfly** in black and white spruce plantations in central Maine.

Regional Surveys

Forest Health Monitoring Program

Interest in regional forest condition prompted the implementation of 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.

Forest Health Monitoring Sites

Results indicate that there has been minimal change in crown condition in the last 12 years. In 2000, 95 percent of trees greater than 5 inches diameter had normal crown fullness, about 85 percent had little or no crown dieback, and 70 percent showed no measurable signs of damage. The most common damage was decay indicators, which were more evident on hardwoods than softwoods. Additional surveys indicate there are concerns for individual species such as ash, butternut, and hemlock due to various damage agents.

For More Information

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State and Private Forestry

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