

# 1994 Forest Health Highlights

## Wisconsin

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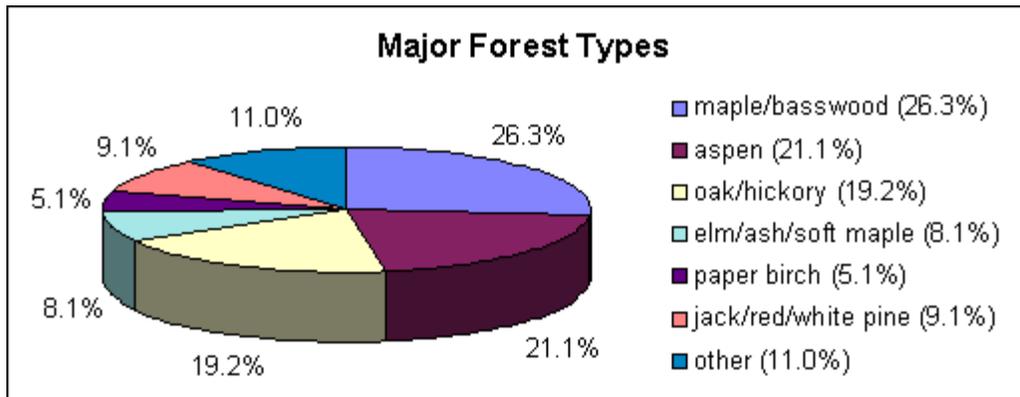
### The Resource

Forests are vital to wildlife, recreation, and the economy of Wisconsin. The primary and secondary wood products industry is the second largest employer in the state. Wisconsin is first in the nation in the production of fine paper, sanitary paper products, juvenile furniture and millwork. The value added of these and other products annually exceeds \$ 4.27 billion.

- 44% of the state is forested (15,351,100 acres)

Out of the forested area:

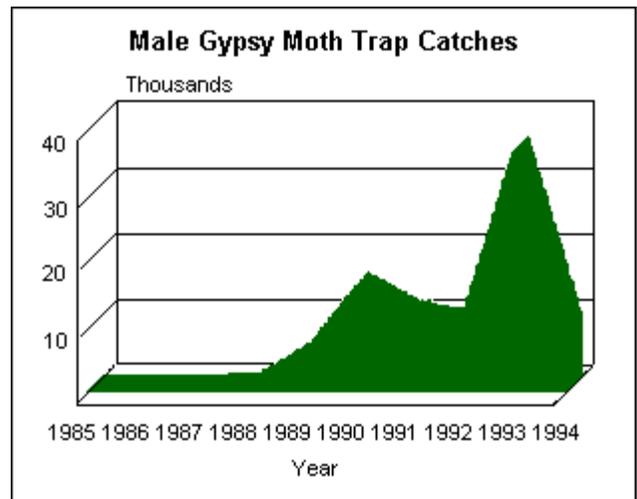
- 96% timberland
- 1% reserved or non commercial forestland



### Special Issues

Butternut Canker is a devastating fungus disease of butternut. In Wisconsin, butternut canker has been reported in 46 of the 62 counties where butternut trees occur. The Wisconsin Department of Natural Resources (WI DNR) is encouraging landowners to plant butternut trees in an attempt to maintain this threatened tree and is working with the USDA Forest Service to develop butternut trees resistant to this devastating disease.

**Gypsy moth**, an exotic insect, annually defoliates millions of acres of trees in the eastern United States. Gypsy moth caterpillars feed on a variety of trees, but favor oaks, American basswood, and aspen. Repeated defoliation can result in growth loss, tree mortality, changes in forest composition, and loss of habitat for various animals. Wisconsin has not experienced perceptible defoliation, however, there are reproducing populations within the State and efforts to eradicate the moth are being made. Since 1990, a total of 139,147 acres have been treated for the eradication of gypsy moth in Wisconsin. In 1994, nearly 31,000 pheromone traps were deployed for the detection and delimitation of



infestations and to monitor the effectiveness of eradication treatments. A total of 9,599 male moths were captured in 39 counties, which was greatly reduced from 1993 when 36,063 male moths were caught.

**Oak wilt**, a fungus disease of oaks, continues to be of major concern in Wisconsin. This disease is spread to new locations by sap feeding insects that are attracted to wounds on oak trees. This disease has been previously reported in 50 of Wisconsin's 72 counties. There were no new county reports of this disease in 1994. There was a marked increase in interest concerning this disease because of the efforts of the Wisconsin Garden Club Federation. The Wisconsin DNR, in cooperation with the Illinois Natural History Survey, has produced a video on the biology and management of oak wilt to enhance efforts to control this disease by providing another method of outreach and education. In addition, the Wisconsin DNR, in cooperation with Wisconsin utility companies, has developed guidelines for the cutting and pruning of oak trees for arborists, utilities, and foresters. These guidelines restrict the cutting and pruning of oak trees from April 15 to July 1 when insect-transmission of this disease is most likely to occur.

## Other Issues

Extremely cold temperatures caused **winter injury** in 1993-94 resulting in widespread reports of dead and dying black walnut trees from LaCrosse, Vernon, Richland, Crawford, Grant, and Iowa counties in southwestern Wisconsin. Affected walnuts were in valley bottoms or in areas where valleys narrow and form steep slopes on either side of the trees. Extremely cold temperatures, as low as  $-40^{\circ}\text{F}$ , were reported for several days in January. Similar damage was also observed in southeastern Minnesota.

The **common pine shoot beetle** continues to be found in new counties throughout the eastern United States. This beetle, native to Europe and Asia, was first found in the United States in 1992. New adults fly to the crowns of living pine trees and enter shoots and feed throughout the summer and fall. Attacked shoots typically discolor, die, and eventually fall to the ground. Because of the potential for damage and the non-native status, APHIS has imposed a federal quarantine on all areas where the common pine shoot beetle is known to occur. The quarantine controls the movement of pine materials from infested to non-infested areas. Quarantined materials include: Christmas trees, nursery stock, and logs or lumber with bark. In 1994, visual surveys and trapping efforts have failed to identify any infestations in Wisconsin. However, the nearest known area of infestation are in northern Illinois, some five miles from Wisconsin.

## Regional Surveys

**Forest Health Monitoring** - In 1994, plots were established to monitor the health of Wisconsin's forests. This is a part of a nationwide Forest Health Monitoring Program in partnership with the Environmental Protection Agency. The motivation to monitor the health of forested ecosystems grew out of the concern over the potential effects of air pollutants, insects, diseases, and other stressors, as well as concern over the potential effects of global climate changes to the composition and stability of forests. The monitoring program includes a network of permanent plots and surveys of forest pests and other stressors. In Wisconsin

there are 223 plots, of which 92 are forested. In addition, surveys for Jack pine and spruce budworms, pine tussock moth, and gypsy moth are done to supplement plot information. Monitoring will be useful to look at current health and changes in forest conditions.

**North American Maple Project** - Wisconsin is a participant in an international project to evaluate the health of sugar maple forests in eastern North America. This project grew out of a concern about sugar maple decline and mortality expressed by foresters and landowners managing forests for maple sugar production. A total of 18 plots have been established in Wisconsin, and trees are evaluated annually. Results indicate that sugar maples are in good condition. Tree health is not adversely affected when managed for maple syrup, and sugar maple mortality has been 0.5 percent since the program was initiated. Mortality of trees can be explained by natural events and harvesting for management purposes.

### **For More Information**

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