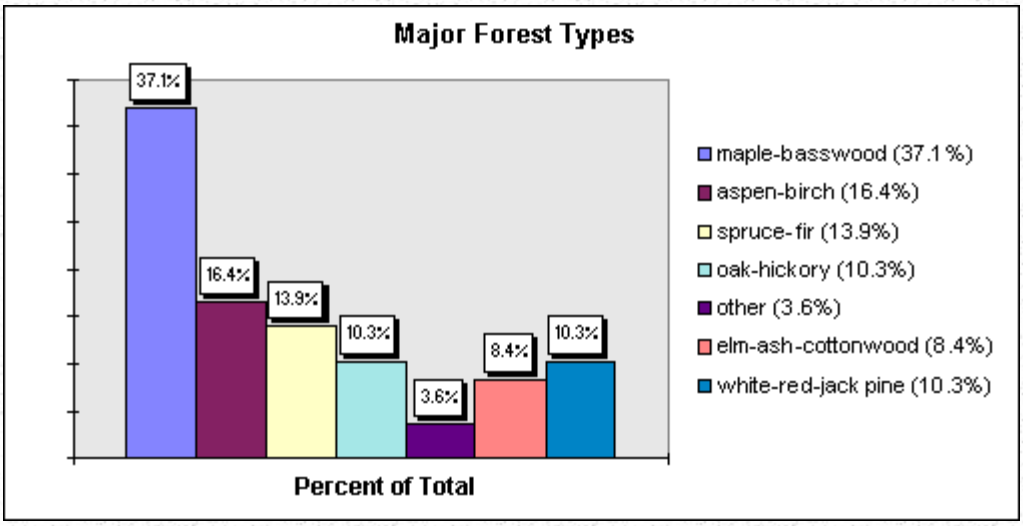
1995 Forest Health Highlights

Michigan

The Resource

Forests comprise 53% of the land area of the state. These forests are a critical component of Michigan's economy, for the products they provide, and the recreational opportunities they make available. Michigan's forests contribute to clean air and water, and reduce soil erosion. For these and other reasons, maintaining healthy forests is important.

Forestry related industries and manufacturing employ about 134,000 people statewide with an annual payroll of $913 million. The overall contribution of the forest resource exceeds $3.2 billion.



Special Issues

Generally, our forests are quite healthy and productive. Problem areas do occur in forest types that are at an age when more volume is lost to disease and decay than is added by annual growth. This is especially true in "even aged" stands.

Forest stressors such as drought, storms, late spring frosts, diseases and insects, together with the old age of various forest types continue to play a significant role in shaping Michigan's forests.

Increased risk of mortality occurs when stands become over mature. This is especially true when large contiguous areas become over mature at the same time. Forest stressors add to declines, sometimes aggravating an already difficult situation to manage. Foresters are attempting to diversify the age class distribution to reduce this risk.

Some forest types show significant signs of decline, while most appear healthy and productive. **Northern pin oak** in the northern lower peninsula is experiencing **mortality and dieback** due to the combined effects of the drought of the late 1980's and old age. These symptoms first began to appear in the early 1990's. Oaks growing on the better sites are, for the most part, healthy and vigorous.

The late 1980's drought also resulted in large amounts of mortality and dieback in white birch. Surviving trees are showing significant signs of recovery, especially on richer, less disturbed sites. However, birch continues to be a very difficult species to regenerate.

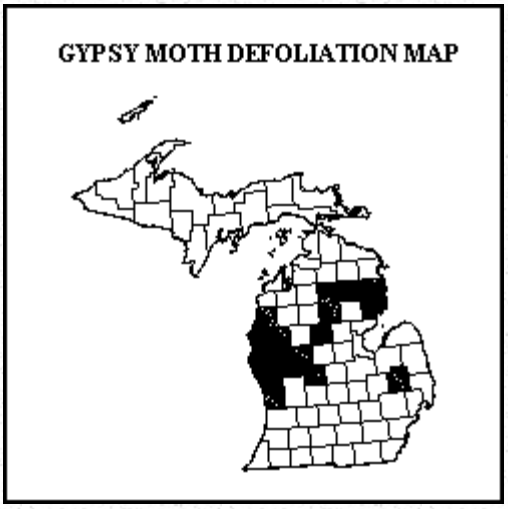
On the other hand, northern hardwood, a type dominated by sugar maple, continues to grow, is very

healthy, and contributes significantly to Michigan's overall forest health.

Severe damage was caused by **downdraft winds** during storms that occurred state wide on July 13. Trees were uprooted and branches were broken over a wide area. The winter of 1995, however, was unusually mild.

Other Issues

Gypsy moth defoliated 85,907 acres in 16 counties. This is a slight reduction from 1994 levels; however, activity is occurring in a few more counties. More defoliation is expected in 1996.

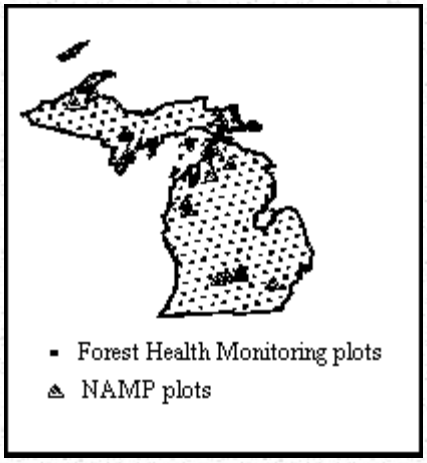


Larch casebearer defoliated 119,986 acres of tamarack from the central UP to Gaylord. This was the first year of an outbreak and we do not expect any long lasting effects.

Oak leaf skeletonizer, **cherry scallop shell moth** and various **oakworm** species caused problems for many people. Generally, Michigan forests are not greatly effected by these pests.

Regional Surveys

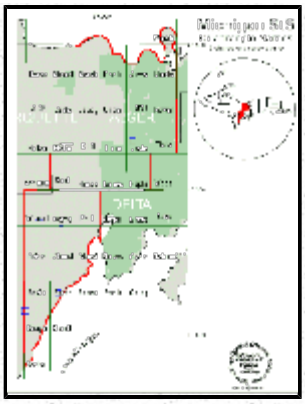
Forest Health Monitoring - Plots established the previous year to monitor the health of Michigan's forests, were remeasured in 1995. This is a part of a nationwide Forest Health Monitoring Program in partnership with the Environmental Protection Agency and the US Forest Service and the University of Michigan.



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. Also, concern over the potential effects of global climate changes to the composition and stability of forests was a motivating factor. The monitoring program includes a network of permanent plots and surveys of forest pests and other stressors. In Michigan, there are 247 plots, of which 133 are forested. In addition, many surveys are conducted to supplement this information. This monitoring will be most useful to measure change over an extended period.

The North American Maple Project - Michigan continues to participate in this international project designed to evaluate the health of sugar maple forests in North America. Results from the 18 plots in Michigan, and those from other participating states and Canada, indicate that regionally, sugar maple health has been improving since the program’s inception in 1988. This is based primarily on crown condition of measured trees.

Michigan is also participating in a gypsy moth **slow the spread pilot project**. This project is being conducted in four states in cooperation with the USDA Forest Service. The project area is located in the Upper Peninsula. The objective of the project is to demonstrate that new and current technology can slow the rate at which gypsy moth populations are currently spreading. Participating agencies involved in the Michigan project include the Michigan Department of Agriculture, Department of Natural Resources, Michigan State University, and USDA Forest Service



Hiawatha National Forest and NA State and Private Forestry. Additional information on this program can be obtained on the internet: http://www.ent.msu.edu/esal/sts/

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