

Ohio - 2003



Forest Health Highlights

The Resource

Ohio encompasses 26,209,700 acres, 30 percent of these acres are forested. Forests have increased dramatically since 1940, including an increase from 7.1 to 7.9 million acres since the late 1970s. Ohio's forests are 93 percent privately owned and 96 percent contain deciduous forest types.

Special Issues

The Emerald Ash Borer — The emerald ash borer (EAB), *Agrilus planipennis*, is a non-native insect pest of ash trees that was newly discovered in the United States in southeastern Michigan in 2002. It may have been in Michigan for as long as 5 years before its discovery. Information from Michigan shows that this insect can spread and kill trees quickly. EAB was unknown in Ohio at the start of 2003, but by the end of 2003, EAB had been found infesting ash in five Ohio counties. In February 2003, EAB was discovered infesting ash trees near the northwestern Ohio town of Whitehouse in Lucas County. Woodpeckers had stripped bark from infested trees while feeding on the mature larvae. Closer inspection revealed the typical D-shaped adult exit holes on stems, frass-filled larval tunnels in a serpentine pattern just under the bark, and 5- to 10-cm vertical splits in the bark above these larval galleries. Approximately 200 ash trees were infested at the Whitehouse location. In an effort to eradicate this insect from the area before it could spread, the Ohio Department of Agriculture (ODA) destroyed about 4,000 trees prior to May 1, when adult emergence occurs. This included infested trees and trees in a quarter-mile buffer zone surrounding the infested properties. In August, an owner of a tree nursery in Hicksville, Defiance County, called to report suspicious damage to ash

trees. These trees were infested with EAB. EAB was also detected in logs at a local manufacturing company. Many of these logs were brought in from Michigan. After looking at sales records from the Hicksville nursery, the ODA was able to locate a few other small spot infestations that were associated with the movement of ash nursery stock. Approximately 100 infested trees were found in Defiance County and one infested tree was found in Paulding County.

In September, EAB was discovered in Rossford near Perrysburg in Wood County. This infestation was also related to the transport of nursery stock, this time from a nursery in Michigan. About 20 trees were infested. Then, 15 more EAB-infested trees were found in Columbus, Ohio in Franklin County. These trees were also landscape trees purchased from a Michigan nursery. In an effort to prevent the spread of EAB, the ODA has enacted a quarantine on ash trees, logs, lumber, bark, chips, and firewood for all infested areas of Ohio. In addition, they enacted an external quarantine on all such products from Michigan. This could have obvious impacts on local businesses. An EAB Task Force has also been assembled to help address these rapidly changing issues.

Beech Bark Disease — The first confirmed case of beech bark disease (BBD) in Ohio was found in 2003. BBD has been killing American beech, *Fagus grandifolia*, trees in the eastern United States since the 1930s. The European beech scale, *Cryptococcus fagisuga*, was first discovered in Ohio in 1985 at the Holden Arboretum in Lake County. Since then, the Arboretum has set up a monitoring program to periodically inspect their beech trees for BBD. In December 2003, the *Nectria* fungal component of BBD was found on American beech trees at the Arboretum. Detection surveys for beech scale and *Nectria* will be expanded in northeastern Ohio in 2004.

Weather

Ice Storm — Southern Ohio and adjoining areas of West Virginia and Kentucky were hit by a severe ice storm on February 15 and 16, 2003. Counties along the Ohio River were most impacted. Trees were damaged in a fairly narrow band through Adams, Scioto, Lawrence, Jackson, Gallia, and Meigs Counties. Some areas had fairly light damage, with only branches torn from trees and perhaps

Forest Pest Issues

a few trees knocked down, but other places, such as the area around Shawnee State Forest, experienced severe damage. In severely affected areas, trees and parts of trees littered the ground, blocking roads, knocking down utility lines, and damaging homes. In addition to infrastructure damage, the forest resource, quite literally, took a beating. Tree mortality and volume loss were both extremely high. In all, trees over about 95,000 acres were affected in Ohio.

Gypsy Moth — In 2003, gypsy moth caterpillars defoliated approximately 3,400 acres of forest land. Pockets of oak mortality can be found in areas affected by gypsy moth. The threat of gypsy moth has been lessened recently by the occurrence of the insect pathogen, *Entomophaga maimaiga*. This fungal pathogen has drastically reduced gypsy moth populations in many areas since 1996 and remained very active in Ohio in 2002. Even though this insect pathogen is present in Ohio, the fungus is not presently controlling gypsy moth populations. As a result, this major forest pest continues spreading to new areas in the State, including the oak-hickory forests of southern Ohio.

Butternut Canker — Decline and mortality of butternut, *Juglans cinerea*, have occurred throughout Ohio. The Ohio Department of Natural Resources, Forestry Division developed and implemented a butternut management policy in 1994 to protect the remaining resources and promote any potential genetic resistance to the disease. Healthy butternut

trees are retained on State forests and private woodland owners are educated about managing for this threatened species.

Dogwood Anthracnose — Wet spring weather favored disease development in 2003, resulting in increased dogwood anthracnose reports. This fungal disease was first reported during 1978 and has caused widespread and often rapid deterioration of flowering dogwood trees across many areas of the northeastern United States.

Jumping Oak Gall Wasp — Damage to white oaks by this insect was found in Highland and Brown Counties in 2003. Elsewhere in Ohio, tree damage was minimal compared to the extensive damage this insect caused to white oak foliage in 2001 over southern Ohio.

Common Oak Moth — For the second straight year, caterpillars of *Phoberia atomeris*, a native moth, severely defoliated white oak trees, primarily in parts of southern Ohio. Severe defoliation, coupled with drought conditions in 1999 and 2002, caused significant tree mortality in some Ross County white oak stands. This mortality continued in 2003, requiring local salvage of dead and dying white oak trees. In 2003, native *Phigalia* inchworm moths damaged white oaks, either in combination with the common oak moth in some areas or by themselves in other areas.

Forest Health Issues

Forest Health Monitoring — Collection of annual forest inventory data and forest health information as part of a nationwide grid design started in Ohio during 2001 and has continued through 2003. An estimated 1,334 inventory plots and 83 forest health monitoring plots will be permanently established in Ohio's forests. All plots will be revisited on a 5-year cycle, with one-fifth of the total plots monitored each year.

Prescribed Fire — The ODNR Forest Division continued a cooperative study with Mead Woodlands and the USDA Forest Service on how prescribed fire, compared with thinning alone and both practices, enhances the health of Ohio's oak ecosystems.

For More Information



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