Ohio — 2001

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 deciduous forest types.

Urban Forestry

Within the State, there are 11,353,000 people (2000 U.S. Census). Ohio's 942 incorporated municipalities (cities and villages) occupy 11 percent of the land area and represent a substantial urban forest resource. In 2001, Ohio communities continued to plant more trees than they removed, while maintaining more trees than they planted. This represents a significant commitment to the quality of life for roughly 80 percent of Ohioans living and/or working in urban areas. A series of statewide surveys and open forums, conducted with municipal leaders, revealed that managing an aging forest is their major concern. The ramifications of over-mature urban trees are substantial, and will be a primary community tree care focus for years to come.

Special Issues

Asian Longhorned Beetle — This destructive exotic insect has not been found infesting trees in Ohio. Trees around six high risk facilities were inpected in 2001. Proactive plans were made to address the issue should action become necessary. Public outreach efforts have emphasized public awareness of this insect, with special attention focused on city, urban, and utility foresters, and other tree care professionals. Key to the outreach was the development of a website where information can be readily accessed by all interested parties — **http://www.hcs.ohio-state.edu/ODNR/Health/alb.htm**.

Forest Fragmentation — Changing land use in Ohio has converted forests to other uses. Historically, forests were often cleared for farming. Some of these agricultural lands are reverting to forests, resulting in increased forested acreage. Today, however, land development breaks forests into smaller parcels as an increasing population places demands on Ohio's land. Forest fragmentation decreases woodland continuity, impacting plants and animals that depend upon large areas of continuous forest cover. Construction of buildings, roads, and utility corridors, while important to our economy, significantly impacts the quantity and quality of Ohio forests. The Ohio Division of Forestry's land acquisition program focuses on purchasing parcels of land connecting existing parcels of state forests. The goal is to create larger, contiguous acreages of permanent forests within Ohio.

Forest Pest Issues

Gypsy Moth — Gypsy moth surveys conducted by the Ohio Department of Agriculture revealed high population densities on some Ohio forests. In addition, oak mortality has occurred in four counties due to repeated defoliation. In 2001, gypsy moth caterpillars defoliated approximately 42,500 acres of forestland. The impact of gypsy moth includes forest ecosystem degradation, economic losses to businesses, loss of recreational opportunities in areas severely defoliated, reduced private property values, and nuisance from gypsy moth caterpillars. 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 2001. Though not much is known about how the pathogen survives or spreads, it is generally thought that abundant rainfall and high humidity during the late spring and early summer produce favorable conditions for the growth of the infective spores of the fungus. Even though this insect pathogen is present in Ohio, the fungus is not presently controlling gypsy moth populations. Also, gypsy moth continues to spread to new areas in the State, including the oak-hickory forests of southern Ohio.

Eastern Tent Caterpillar — Populations of this native defoliator were high in some areas of southern Ohio. Complete defoliation of black cherry trees was common during the spring.

Oak Wilt — This fungal disease of red oaks, killed trees in some northeast Ohio communities. Confirmed cases of oak wilt will be watched to determine if the disease continues to spread.

Southern Pine Beetle — Southern pine beetle infestations discovered in Adams, Meigs, Jackson, and Pike Counties late this year killed planted

loblolly pine trees. During subsequent monitoring efforts, infestations were also found in Scioto, Lawrence, Gallia, and Hocking Counties. A series of mild winters followed by the drought in 1999 probably allowed this southern species to infest trees in Ohio. The problem appears to be decreasing due to cold temperatures last winter, but the problem will be watched carefully.

Butternut Canker — Decline and mortality of butternut, *Juglans cinerea*, has occurred throughout Ohio. The Ohio Department of Natural Resources, Division of Forestry, developed and implemented a butternut management policy in 1994 to protect the remaining resources and promote any potential genetic resistance to the disease. The policy requires retention of healthy butternut trees in State forests. It also encourages education of private woodland owners regarding proper health assessment and management of this threatened species.

Dogwood Anthracnose — Dogwood anthracnose, a fungal disease first reported during 1978, has caused widespread and often rapid deterioration of flowering dogwood trees across many areas of the northeast United States. Reports of dogwood mortality have been increasing in Ohio, especially from southern and southeastern counties. Dry weather in 1999 greatly reduced reports of the disease, but dogwood decline and mortality still could be observed.

European Beech Scale—Populations of this precusor of beech bark disease appear to be rising in Lake and Geauga Counties. However, the *Nectria* fungus that interacts with this scale insect to cause beech bark disease has not been found. Beech bark disease can cause significant beech tree mortality, so this area of the State is being closely watched.

Jumping Oak Gall Wasp—White oak foliage in parts of southern Ohio turned brown in June 2001, due to a heavy infestation caused by the jumping oak gall wasp. Reports of damaged white oak foliage were received from Noble, Washington, Morgan, Monroe, Jackson, Athens, Lawrence, and Vinton Counties. Lightly infested trees had discolored foliage, whereas, severely infested trees turned browned and dropped their foliage prematurely. This was the first extensive outbreak of this gall wasp in Ohio. Other states, including Indiana, Minnesota, Wisconsin, Kentucky, Missouri, and West Virginia, have also recently reported some damage from jumping oak gall wasp. Tiny cynipid wasps lay eggs in buds causing the leaves to deform into pin-head sized galls on the leaves. Larvae feed on leaf tissue inside these small galls, which eventually fall to the ground, where the wasps complete their development and overwinter. Landowners and the general public are concerned about what will happen if the same white oaks are attacked by this gall wasp again next year. There seem to be many gall-causing insects on oak and, generally speaking, they do not kill trees. However, repeated damage of any kind will weaken trees and could result in tree mortality. Some severely infested trees have prematurely dropped their leaves. Early season defoliation stresses trees and reduces growth. If the problem persists, natural control agents, such as parasites, predators and pathogens, may reduce the wasp abundance.

Forest Health Issues

Forest Health Monitoring — Collection of annual forest inventory and forest health information stated in Ohio during 2001. Sample plots are part of a nationwide grid design. An estimated 1,334 inventory plots and 83 forest health monitoring plots will be permanently established in Ohio forests. The plots will be visited on a five-year cycle, with one-fifth of the total plots being visited each year.

Prescribed Fire — A study was initiated to determine how prescribed fire enhances the health of Ohio's oak ecosystems. This is a cooperative effort between ODNR Forestry Division, Mead Woodlands, and USDA Forest Service. The effects on oak forests of burning alone, thinning alone, and both practices combined will be studied.

For More Information

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