



Highlights

December 2006

This year, a severe summer drought caused plantings of tree seedlings to die in areas scattered across northern Wisconsin. Oak and pine, already stressed by past years of low moisture, finally succumbed to infestations by the two-lined chestnut borer (oak) and pine bark beetle (pine). Dieback in aspen was also observed in droughty areas. Shagbark and bitternut hickory throughout southern Wisconsin also continued to die as a result of past droughty years and infestations by the hickory bark beetle. Populations of the jack pine budworm continued to decline in northwestern parts of the state but continued to rise and feed on both red and jack pine in west-central and north-central Wisconsin. Surveys for exotic species including the emerald ash borer, beech bark disease, Sirex woodwasp and *Phytophthora ramorum* (the cause of sudden oak death) all returned negative results. Gypsy moth populations remained low, due to a collapse in 2004 but have continued to rise in scattered areas of south-central Wisconsin.

THE RESOURCE

—Forests are important to the economy of Wisconsin, not only in the form of wood products, but also for recreation and tourism. The primary and secondary wood products industry is one of the five largest employers in the state and puts Wisconsin first in the nation in the production of fine paper, sanitary paper products, children’s furniture, and millwork. The value of shipment of these products is about \$20 billion. Forest and water resources in Wisconsin are a primary tourism attraction for both residents and visitors. The variety of Wisconsin’s forest ecosystems support a great diversity of wildlife species, while recreational use of the forests continues to grow and expand. The area of forestland in Wisconsin has been steadily increasing in recent decades and currently stands at almost 16.0 million acres, representing 46 percent of the total land area. The state now has the most forest land that it has had at any time since

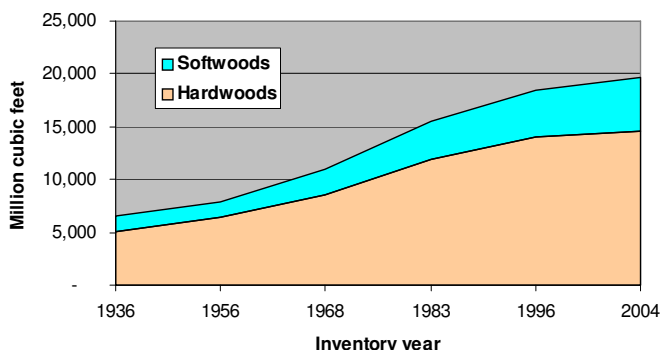


Figure 3. Growing stock volume (in million cubic ft) on timberland in Wisconsin, 1936-2004 (based on FIA inventory data).

In this issue:

The Resource	1
Exotics	1
<i>Emerald Ash Borer</i>	1
<i>Gypsy Moth 2006</i>	2
<i>Sudden Oak Death</i>	3
<i>Beech Bark Disease</i>	3
<i>Siricid Woodwasp (European)</i>	3
Hardwood Pests	4
<i>Ash Yellows</i>	4
<i>Hickory decline/mortality</i>	4
<i>Oak Wilt</i>	5
<i>Oak dieback and mortality</i>	5
<i>Tar spot on Norway Maple</i>	5
Conifer Pests	6
<i>Annosum Root Rot</i>	6
<i>Diplodia on red pine seedlings</i>	6
<i>Jack Pine Budworm</i>	6
<i>Red Pine Pocket Mortality</i>	7
Abiotic	9
<i>Hail Damage</i>	9
<i>Sugar Maple Defoliation</i>	9
<i>Heavy rain and anthracnose</i>	10
<i>Severe drought in Northern WI</i>	10
Special Reports	10
<i>Mapping ash distribution</i>	10
<i>Invasive Plant Survey</i>	11

the first forest inventory in 1936. Wisconsin’s forests are predominately hardwoods, with 81% of the total timberland area classified as hardwood forest types. The primary hardwood forest types in the state are maple-basswood, with 4.4 million acres or 28% of all timberland, oak-hickory on 3.4 million acres or 22% of total acreage and aspen-birch which covers 3.2 million acres or 21% of Wisconsin’s timberland area. Conifer types, mainly red, white and jack pines and spruce-fir represent about 3 million acres or 19% of total timberland areain the state.

EXOTICS

Emerald Ash Borer

Detection Tree Surveys

In an effort to detect the Emerald Ash Borer before the infestation becomes widespread in

Wisconsin, the DNR conducted both detection-tree and visual surveys throughout the state. Detection tree surveys for 2006 were contracted with scientists at Michigan Tech University and coordinated by Bill McNee, north-eastern region gypsy moth suppression program coordinator. One hundred thirty-one detection trees (girdled ash trees with tangle foot painted on the stem) were established on 21 state park



properties. These trees were visited throughout the summer and examined for the presence of adults stuck in the tangle foot. Fifty-three of the detection trees were felled and peeled in the fall in order to look for developing larvae. The rest of the detection trees will be felled in 2007.

Detection trees (set up in 2004 and 2005) were felled and peeled during 2006 on the following state forests: Kettle Moraine, Governor Knowles, Brule River, Flambeau River, Northern Highland American Legion, Peshtigo River, and Point Beach. Seven detection trees were monitored along a 23-mile stretch of the Lower Wisconsin Riverway between Mazomanie Beach in Dane County and Long Island in Richland County. In

November, detection trees were felled and the bark peeled to look for developing emerald ash borer larvae or their serpentine galleries in the cambium layer. No emerald ash borer larvae were detected during bark peeling. However, other larvae, including one species of a metallic wood-boring beetle and a long-horned beetle were detected and are in the process of being identified. Ash bark beetle and ash cambium miner galleries were evident in the cambium layer and red-headed ash borer galleries were detected in the sapwood.

Visual surveys

Visual surveys were also conducted at 235 private and county campgrounds and recreational areas throughout South central and Southwestern Wisconsin. More than 24,000 campsites were visited, while surveying more than 3500 ash trees. These

surveys resulted in finding no emerald ash borers, but also revealed several locations that will require follow-up surveys in 2007 to monitor declining ash. The overall health of the ash trees surveyed was good, with only minor insect and disease findings such as ash plant bug, ashleaf gall mite, ash flowergall mite and the leaf disease anthracnose.

Past survey results and other information related to EAB in Wisconsin is available on the following webpage: <http://dnr.wi.gov/org/land/Forestry/FH/Ash/>.

Gypsy Moth 2006

Suppression:

Gypsy moth populations remained low due to a collapse in 2004, but have continued to rise since then due to the warm, dry summers of 2005 and 2006. South-central Wisconsin is looking like the next region of the state to see widespread outbreaks. This area is very favorable gypsy moth habitat, with a lot of oak growing on sandy soils. Populations in eastern Wisconsin have also risen but remain relatively low. There were a number of reports of individual trees being defoliated, but there were no larger patches of defoliation reported.

This year's DNR suppression program was very small, with 4 participating counties and approximately 1,500 acres sprayed. Treatments were conducted at a dosage of 36 BIU. At present, the 2007 spray program is likely to be even smaller, as several counties have been hesitant to participate due to the lack of federal cost sharing. However, this trend is likely to reverse if populations continue increasing as they have in the past 2 years. In eastern Wisconsin, numerous spots are simmering at levels too low to spray in 2007, but could easily qualify for spraying in 2008.

Slow The Spread:

In Wisconsin, the slow-the-spread program is conducted by the Wisconsin Dept. of Agriculture, Trade, and Consumer

