Forest Resource Summary

Maryland occupies a land area of 6,264,876 acres. Forest land comprises 2,709,062 acres, of which 72 percent is privately owned. Healthy, productive forests are critical in urban and rural areas for soil conservation, clean air and water, wildlife habitat, outdoor recreation, and aesthetics. The forest products industry is the largest employer in Allegany and Garrett Counties and the second largest employer on the Eastern Shore.

Forest Health Programs

State forestry agencies work in partnership with the U.S. Forest Service to monitor forest conditions and trends in their State and respond to pest outbreaks to protect the forest resource.
Forest Pest Issues

Gypsy Moth

The gypsy moth is the most serious threat to oak forests in the United States. The first eggs were detected in Maryland in 1971, and the first extensive defoliation occurred in 1981. Each fall and winter, the Maryland Department of Agriculture (MDA) conducts an extensive survey for gypsy moth egg masses to determine potential areas of defoliation. From August 2013 through March 2014, MDA Forest Pest Management personnel conducted gypsy moth egg mass surveys on 479,198 acres of “high-value” forested lands. “High-value” forested sites include areas with development, recreational use, managed forest and wildlife resources, and other site conditions that render dieback and mortality economically and socially important. The survey results indicated that the current populations were sufficient to cause moderate to heavy defoliation on 5,699 acres of high-value rural and urban forest in 2014. During 2014, MDA sprayed 5,164 acres in 37 spray blocks with Foray 48B. All spray areas were in Garrett, Allegany, and Talbot Counties. Application started May 6, 2014, and concluded May 30, 2014.

Net Volume of Growing Stock on Timberland by Species in Maryland, 2012

For gypsy moth (Lymantria dispar (Linnaeus)). (Photo courtesy of USDA APHIS PPQ Archive, UGA1148049, forestryimages.org)
Historical Gypsy Moth Defoliation and Suppression
Hemlock Woolly Adelgid (HWA)

HWA remains the major threat to the health of eastern hemlock. Infested hemlocks occur in the metropolitan area between Baltimore and Washington and in natural stands from Harford to Garrett Counties. *Laricobius nigrinis*, a predatory beetle of the hemlock woolly adelgid, has been released in several areas since 2004.

2003 to 2013 *Laricobius nigrinus* Hemlock Woolly Adelgid Predator Releases in Maryland Hemlock Stands

Since 2003 there have been 36 releases totaling 15,477 *Laricobius nigrinus* in Maryland.

Legend

- Laricobius nigrinus Release Sites
Hemlock Woolly Adelgid Suppression

A joint task force of MDA and Maryland Department of Natural Resources personnel addressed the multidisciplinary needs of the HWA infestation. The task force prioritized more than 50 hemlock stands and selected them as the sites where suppression might be attempted. Only publicly owned sites would be part of this suppression project.

<table>
<thead>
<tr>
<th>Fall 2013 - Spring 2014 Imidacloprid Treatments for Hemlock Woolly Adelgid in Maryland</th>
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</thead>
<tbody>
<tr>
<td><strong>Hemlock Stand</strong></td>
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<tr>
<td>Green Ridge State Forest</td>
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<tr>
<td>Prettyboy Reservoir</td>
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<tr>
<td>Frederick Watershed</td>
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<tr>
<td>Cranesville Swamp**</td>
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<tr>
<td>New Germany State Park***</td>
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<tr>
<td>Potomac State Forest</td>
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<td>Savage River State Forest</td>
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<td>Swallow Falls State Park</td>
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<tr>
<td>Broad Creek Boy Scout Camp</td>
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<td>Seneca Creek State Park</td>
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<td>South Mountain State Park</td>
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<tr>
<td><strong>Total</strong></td>
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*DBH = the diameter of the tree trunk at 4.5 feet above the ground
** Owned By The Nature Conservancy
*** Treatments done by Forest Pest Management and Maryland Conservation Corps (Department of Natural Resources)

Southern Pine Beetle (SPB)

SPB is one of the most destructive insect pests of pines. Maryland is at the northern edge of its range, and this pest is commonly found on the lower Eastern Shore and southern Maryland. Since 1989, Maryland has participated in a multistate SPB survey throughout the Southern United States using pheromone-baited traps. Trap data indicated that SPB numbers would continue to remain low in 2013. Populations have been below outbreak level since 1994.

Sirex noctilio (Woodwasp)

Sirex woodwasp has not been detected in Maryland but is known to be in Pennsylvania. To detect this insect, MDA placed two traps per county in the northern tier counties and one trap for all other counties, for a total of 30 traps in pine woods. All traps were negative during FY 2013.

Emerald Ash Borer (EAB)

The emerald ash borer (*Agrilus planipennis* Fairmaire) is a metallic green, wood-boring beetle originally from Asia that was first detected in the United States in 2002 near Detroit, MI. Since then, this invasive insect has spread to at least 15 other States, including 13 counties in Maryland. It is responsible for the death of millions of ash trees across the United States. Infested trees usually die within 3 to 5 years as the flow of water and nutrients within the tree is cut off by boring EAB larvae that feed on the inner bark.
An estimated 5 million ash trees greater than 5 inches in diameter are growing on forest land in Maryland. The highest concentrations of ash are in western Maryland forests. But ash is also an important urban tree often planted along streets or growing in landscapes. An estimated 5 million ash are thought to be growing in urban settings within the Baltimore metro area alone.

Currently, the Maryland Department of Natural Resources has a federally funded project to help communities assess their risk to emerald ash borer and to make plans to mitigate its impacts.

**2014 Maryland Emerald Ash Borer Trap Results**
Forest Pest Management Section, Maryland Department of Agriculture

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**Thousand Cankers Disease of Black Walnut (TCD) and Walnut Twig Beetle (WTB)**

Eastern black walnuts planted in the Western United States have experienced dieback and mortality. The WTB spreads TCD. An infested tree usually dies within 3 years of visible symptoms. This beetle and disease had not been reported in the natural range of the eastern black walnut until they were discovered in Tennessee in 2010. Since then, TCD has been found in Pennsylvania, North Carolina, and Virginia.

MDA Forest Pest Management (FPM) started surveying for this disease with other Mid-Atlantic States in 2011. In 2013, MDA FPM staff visually inspected for visible symptoms of TCD. So far, the disease has not been seen in Maryland. Twenty-eight traps baited with a pheromone for the WTB were set statewide. No WTB have been found.
**Bacterial Leaf Scorch (BLS)**

BLS was prevalent all through the State this year. It was observed not only on ornamental trees but throughout the State in forested areas. BLS was less severe this year than last.

**Beech Bark Disease**

Beech bark disease has been found only in Garrett County. There are 154,473 acres of infested forest in Garrett County.

**References**

**Land Cover Map:**

**Forest Land Area by Ownership:**

**Net Volume of Growing Stock on Timberland by Species:**