

Maryland - 2005

Forest Health Highlights



The Resource

Maryland occupies a land area of 6,255,800 acres. Forest land comprises 2,565,800 acres of which nearly 76 percent is privately owned. Healthy, productive forests are critical in both 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 Monitoring

The Forest Health Monitoring (FHM) Program has two components: a plot network and off-plot survey. The USDA Forest Service Northeastern Research Station Forest Inventory and Analysis staff administers the plot network in Maryland. The plot network is designed to annually monitor, assess, and report on changes in the long-term condition of trees, soils, lichens, and air quality in forests.

The Maryland Department of Agriculture (MDA) conducts the off-plot survey component of FHM. The objectives of the FHM Program are to delimit, map, and report forest pest problems as a supplement to the FHM plot network. Aerial and ground surveys, data collection, and reporting are conducted in accordance with FHM standards for air operations and GIS.

Forest Pest Issues

Gypsy Moth — No defoliation was recorded in 2005, which was the first time since 1979 that there was no damage in Maryland and no treatments by the MD Cooperative Gypsy Moth

Suppression Program. Egg mass surveys conducted in the fall of 2005 indicated damaging infestation levels in several counties. Treatments will be proposed in the northeast, central, and western areas of the State for spring 2006.

Hardwood Defoliators — Fall cankerworm defoliated 1,000 acres of mixed hardwoods in Anne Arundel County.

Bark Beetles — Since 1993, the Maryland Department of Agriculture has searched for five target European **exotic bark beetle** species in Maryland as part of a national survey conducted through the USDA APHIS-CAPS Program. These exotic bark beetles, which have the potential for causing economic and ecological impacts in the United States, are sampled with pheromone-baited Lindgren funnel traps. Importers of marble, tile, and granite were identified as possible sources of infested solid wood-packing material. Black light traps and pheromone-baited traps were placed in and around these warehouses from May through October. No target species were trapped in 2005. The **pine shoot beetle**, a European bark beetle, was the target of another USDA APHIS- funded survey conducted in 10 Maryland counties. The pine shoot beetle was first found in western Maryland in 1995. Pine shoot beetles are now found in all five western Maryland counties (Allegany, Frederick, Montgomery, Garrett, and Washington). Significantly more beetles were found in traps in 2005 than in previous years. A Federal quarantine restricts pine material moving from these counties. **Southern pine beetle** populations continue to remain low in the State, but populations usually build up to damaging levels on a 7- to 8-year cycle. The last outbreak ended in 1994. Talbot County experienced, for the first time ever, a minor infestation of southern pine beetle (99 acres, 22 spots). The outbreak was significant to many of the landowners because most of the spots occurred on residential property.

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. A joint MDA-DNR HWA Task Force addresses the multidisciplinary needs of the HWA infestation. As part of a mid-Atlantic multistate survey, 13 plots have been set up in six counties to assess the HWA impact on hemlock stands. The potential for HWA biological control by the predatory beetle, *Laricobius nigrinus*, was evaluated in Frederick County and in Rocky Gap State Park in Allegany

County during 2004. *Laricobius* was recovered from Rocky Gap in the fall of 2005. Two other predatory beetle species, *Scymnus sinuanodulus* and *Sasajiscymnus tsugae*, were released at several different sites. In 2005, 1,561 trees on priority sites received soil injections and 100 trees received trunk injections of imidacloprid, an insecticide used for control of HWA.

Special Issues

Phytophthora ramorum — Maryland was one of many States receiving *Phytophthora ramorum*-infested nursery stock in 2004. MDA Plant Protection was responsible for surveying nurseries that received the infected stock and conducting trace-forward inspections for all potentially infected plant material. Forest Pest Management conducted a USDA Forest Service-funded nursery perimeter survey around those establishments that received host plant material from the same source as the infected plants. Landscape and forest trees around 45 nurseries and forest sites were surveyed for *P. ramorum* infections in 2005. No infected plants were found in the surveys in 2005.

Emerald Ash Borer — Infested ash trees were found at a Maryland nursery in August 2003. Infested ash trees from Michigan were sent to the Maryland nursery in April 2003 and some of these trees were sold as part of the nursery's

landscaping business. The remaining trees and other ash that became infested at the nursery were destroyed by MDA staff. MDA Plant Protection staff had traced forward ash trees sold by the Maryland nursery and removed all of these ash trees. Additionally, all ash trees within ½ mile of the infested nursery were cut and burned in the early spring of 2004. MDA Forest Pest Management and Plant Protection staff conducted visual surveys and monitored trap trees in areas that had infested ash trees. Trap trees were placed in areas of Garrett County near property owned by Michigan residents. In 2005, no additional infested ash trees were found, and no emerald ash borers were found in trap trees.

Urban Forestry

Roadside Tree Forest Health Assessment — The Maryland Roadside Tree Law in effect since 1914 places all trees in the road right-of-way under the DNR's protection. Since 1999, the MDA and DNR have worked on a collaborative project with the USDA Forest Service to assess the quantity and quality of the roadside tree resource growing along more than 30,000 miles of improved roads in Maryland. In 2001, this team of agencies developed urban forest health monitoring protocols to initiate a roadside tree survey. In 2001, 300 plots were visited across the State, and inventory data (species, DBH, and height), along with tree health data (crown condition, dieback, and damage), were recorded for each tree in a plot. In 2005, the final year of the survey, a subset of these baseline plots was revisited to monitor change in this urban forest resource. Data from each year of this survey have been compiled and are being analyzed by the MDA, DNR, and the USDA Forest Service.

For More Information



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