West Virginia - 2005

Forest Health Highlights

The Resource

The West Virginia landscape is dominated by more than 11.8 million acres of forest. Due in large part to its varied topography, the forest is a rich diversity of oaks, hickories, spruce, pines, and the State tree—sugar maple. Ninety percent of all forests in the State are privately owned, but there are 9 State forests, 36 State parks, and 56 wildlife management areas that provide public enjoyment.

Forest Stewardship

The Forest Stewardship Program philosophy ensures that private landowners apply environmental and economic resource management principles to benefit themselves, future landowners, and the public. The focal point of the Forest Stewardship Program is the development of a long-term management plan for each woodland owner who is willing to participate. In West Virginia, the Forest Stewardship Program includes having a forest management plan written by a professional forester, as well as financial assistance for recreation, forest improvement, soil and water protection, wetlands protection, fisheries habitat enhancement, and wildlife habitat enhancement. There have been 4,040 forest stewardship plans developed covering 672,135 acres in West Virginia as of December 31, 2004.

Special Issues

Gypsy Moth — West Virginia Department of Agriculture (WVDA) field agents surveyed more than 200,000 acres of State and private land during the fall of 2004 to determine areas at risk for potential gypsy moth defoliation in the spring of 2005. Based on egg mass counts, there was no gypsy moth suppression program conducted in the generally infested area of the State during 2005. The WVDA conducted aerial defoliation surveys of 4,000,000 acres of private, State, and Federal forest land in the generally infested portion of the State in 2005. Gypsy moth defoliation was observed on over 2,641 acres of forest land.

A total of 13,650 acres were treated as part of the Slow the Spread (STS) Program in 2005. Four blocks located in Mercer, Raleigh, and Summers Counties in southern West Virginia were treated with a single application of pheromone flakes for low-level gypsy moth infestations under the STS Program.

***Phytophthora* Survey** — In the spring of 2004, West Virginia participated in a nine-state survey that included Maryland, Pennsylvania, Ohio, Indiana, Illinois, Michigan, Wisconsin, and Minnesota to survey for *Phytophthora* species in four declining and four nondeclining stands distributed across the major oak forest types in each State. Sites were chosen during the fall, winter, and early spring months. Sampling was conducted through April.

In the fall of 2004, another survey was conducted in which eight sites (four decline, four healthy) were expected to be surveyed. The results from the spring sampling determined if any of the sites needed to be revisited. Because three of the spring sites (all decline sites) showed negative isolations from the spring survey, we re-sampled those sites, added one more decline site, and added four new sites that contained healthy stands of oaks. To date, *Phytophthora cinnamomi* was most frequently isolated in both the healthy and declining stands of oak.

Sudden Oak Death (SOD) — This year, a total of 60 locations (17 nursery perimeters, 43 forested settings) were surveyed. Nurseries were chosen to be surveyed if they received any host stock from the West Coast. Plant samples (118 for a USDA Forest Service survey) were screened by our lab with duplicate samples screened by Mississippi State University for the Forest Service SOD survey. Both PCR labs confirmed that no sudden oak death was present in the samples screened. For the APHIS SOD survey, plant samples were screened using ELISA and PCR. A total of 254 plant samples were screened for *P. ramorum*, which was not detected. To date, WVDA has screened a total of 1,210 samples for the USDA Forest Service and APHIS-funded surveys. *P. ramorum* has yet to be detected in West Virginia.

Beech Bark Disease/Mortality — Due to time constraints in 2003, the beech mortality survey was not completed, but was continued in 2005. As a result, mortality was mapped, the expanded killing front was documented, and mapping errors from previous years were corrected. In 1998, mortality was detected on over 914,972 acres in all but Barbour and Grant Counties. During 2003 and 2005, the killing front was detected over an area encompassing 1,390,298 acres in portions of nine counties. Mortality has now been found in Webster and Preston Counties.

Emerald Ash Borer (EAB) — In 2005, the WVDA conducted emerald ash borer detection surveys, which primarily targeted high-risk areas and areas of ash decline. EAB visual surveys were conducted by CFHP field agents and summer field scouts in Brooke, Cabell, Hampshire, Hancock, Hardy, Jackson, Jefferson, Kanawha, Lincoln, Logan, Mason, Marshall, McDowell, Mercer, Mingo, Monongalia, Monroe, Morgan, Ohio, Pleasants, Putnam, Ritchie, Tyler, Wetzel, Wayne, and Wood Counties. Twelve EAB trap trees were established in Berkeley, Greenbrier, Hampshire, Hancock, Mason, Mineral, Morgan, Nicholas, Pocahontas, Ritchie, Tyler, and Wetzel Counties. There were no EAB-infested trees found during the course of this survey.

Hemlock Woolly Adelgid (HWA) — HWA was detected for the first time in Upshur and Wyoming Counties during 2005. Approximately 30,000 *Sasajiscymnus tsugae* adults were released at 10 sites on State lands. One release of 460 *Scymnus sinuanodulus* beetles was made in Calvin Price State Forest. The WVDA continued its suppression program to treat high-value and high-visibility infested hemlocks. Suppression activities involved treating hemlocks with imidacloprid, a systemic insecticide. Imidacloprid was injected around infested trees into the soil using Merit 75WSP with a Kioritz soil injector or injected into the trunks using IMA-jet and the Arborjet Tree IV system. A total of 598 trees were treated at 22 sites.

Periodical Cicada — Brood XI emergence was expected in Nicholas and Fayette Counties according to historical records. No emergence was detected.

Loopers — Winter surveys for loopers predicted moderate populations in Monongalia, Kanawha, and Hardy Counties and low populations in Wayne, Wood, Mason, Mineral, and Hampshire Counties where sticky banding and black light trapping were conducted. Spring larval surveys reported moderate defoliation in Hampshire, Mason, and Mineral Counties and heavy defoliation in areas of Grant and Hardy Counties. Defoliation was much less widespread and less severe than last year. Aerial surveys mapped 1,761 acres of defoliation in Hampshire and Hardy Counties. Light defoliation was recorded on over 735 acres and 1,026 acres were recorded as heavy.

Forest Fire

2005 was another abnormally wet year in West Virginia. As a result of abundant precipitation, the destructive forces of wildfire were kept to a minimum. In 2005, there were 613 wildland fires that consumed 8,284 acres, resulting in an estimated $2,429,280 in damage to the natural resources. Debris burning and incendiary fires are the two leading causes of wildfires in West Virginia.

For More Information

West Virginia
Division of Forestry
1900 Kanawha Blvd., East
Charleston, WV 25305
Phone: (304) 558-2788

West Virginia
Dept. of Agriculture
Plant Industries Division
1900 Kanawha Blvd., East
Charleston, WV 25305
Phone: (304) 558-2212

USDA Forest Service
Northeastern Area
State and Private Forestry
Forest Health Protection
180 Canfield Street
Morgantown, WV 26505
Phone: (304) 285-1541
http://www.fs.fed.us./na/morgantown