

West Virginia - 2004

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 for 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, 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 a total of 303,253 acres of State and private land during the fall of 2003 to determine areas at risk for potential gypsy moth defoliation in the spring of 2004. Based on egg counts, there was no gypsy moth suppression program conducted in the generally infested area of the State during 2004. The WVDA conducted aerial defoliation surveys over 5,620,599 acres of forest land in the gypsy moth generally infested portion of the state on private, State, and Federal forest land in 2004. No gypsy moth defoliation was identified by aerial survey during 2004.

A total of 4,400 acres were treated as part of the Slow the Spread (STS) Program in 2004. Three blocks, located in Mercer, Raleigh, and Summers Counties in southern West Virginia, were treated with a double application of Btk. Additionally, a total of 10,000 acres of Federal, State, and private land in West Virginia were treated with pheromone flakes for low-level gypsy moth infestations under the STS Program. The treated land occurred in four blocks in Raleigh and Summers Counties.

Phytophthora Survey — This year we participated in a nine-state survey including MD, PA, OH, IN, IL, MI, WI, and MN to survey for *Phytophthora* species in four declining and four non-declining stands distributed across the major oak forest types in each state. Sites were chosen over the fall, winter, and early spring months. Sample collecting was conducted through April. Results so far indicate that the phytophthora species most abundant in the WV survey sites are *P. cinnamomi*, *P. citricola*, *P. cactorum*-like, and *P. europea*.

Sudden Oak Death (SOD) — This year, the focus of the sudden oak death survey (causal agent, *Phytophthora ramorum*) was on the nursery perimeter aspect. Up until March 8 of this year, all ramorum-infected plants in nurseries were thought to have been found and destroyed in accordance with APHIS-PPQ regulations, but, some were missed. Monrovia Nursery in Azusa, CA (LA County-outside regulated area) grows 600 acres of a wide variety of potted plants and infected nursery stock was shipped all over the country. Because of this, we focused on nurseries that received rhododendrons or other host stock from Monrovia first, secondly, host stock from out west, and lastly, nurseries that received general host stock. We also processed samples collected by our CAPS program since their SOD survey was funded by APHIS.

Due to host-list expansion for *P. ramorum*, we sampled not only symptomatic rhododendron, mountain laurel, and bleeding cankers of *Quercus* spp., but also bleeding cankers on *Fagus* and *Castanea* spp., and symptomatic leaves of *Lonicera* spp., *Acer* spp., *Hamamelis* spp., *Viburnum* spp., *Vaccinium* spp., and *Aesculus* spp. Transect width varied with density of vegetation (the less dense, the more you could see and the further crews would meander to collect suitable symptomatic host materials). A total of 139 nurseries were surveyed with 231 samples screened by our lab and half of that screened by Mississippi State University for the Forest Service SOD survey. Both PCR labs were able to confirm that no sudden oak death was present in the samples screened. For the APHIS SOD survey, a total of 348 plant samples were screened for *P. ramorum*.

Emerald Ash Borer (EAB) — The WVDA conducted a visual detection survey for emerald ash borer in 2004. The following Counties were surveyed: Berkeley, Brooke, Hampshire, Hancock, Hardy, Harrison, Jefferson, Marion, Marshall, Mineral, Monongalia, Morgan, Ohio, Pleasants, Taylor, Tyler, and Wetzel. The objective of the survey was to locate possible EAB infested ash trees within West Virginia. 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 McDowell and Monongalia Counties during 2004. Releases of 2,500 *Sasajiscymnus tsugae* each were made at Ice Mountain, Blackwater Falls State Park, and Cathedral State Park. An additional release of 300 *Laricobius nigrinus* beetles was made at Seneca State Forest in March 2004. The WVDA initiated a suppression program to treat high value or high visibility infested hemlocks at Beartown State Park, Blackwater Falls State Park, Bluestone State Park, Cathedral State Park, Droop Mountain Battlefield State Park, Greenbrier State Forest, Hawks Nest State Park, Lost River State Park, Seneca State Forest, and Watoga State Park during 2004. Suppression activities were centered on 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 200 trees were treated.

Oak Wilt Survey — Aerial oak wilt surveys were conducted over Ohio, Brooke, Tucker, and Webster Counties, the four historically oak wilt free counties. Additionally, aerial surveys were conducted over four high disease incidence quadrangles in the Eastern Panhandle. During the 2004 survey, cicada damage impacted the oak wilt totals, but 12 oak wilt disease centers were observed in the four high disease incidence quadrangles. Eleven disease centers were observed in Hardy County, and one mortality center was observed in Grant County.

Periodical Cicada — Brood X emergence was reported primarily in six Eastern Panhandle counties this spring: Berkeley, Grant, Jefferson, Hampshire, Mineral, and Morgan. There was a small, light emergence at Beech Fork Lake in Wayne and Cabell Counties on the western part of the State.

Loopers — Light to heavy populations of fall cankerworm, spring cankerworm, half-winged geometer, and linden looper were reported in Mineral, Hampshire, Hardy, and Grant Counties in the Eastern Panhandle. Loopers severely defoliated 18,800 acres in this area during 2003, but the 2004 damage, while more widespread, was not as severe. An aerial survey mapped 39,007 acres of looper defoliation in the Eastern Panhandle; light defoliation was recorded over 33,973 acres and heavy defoliation was recorded on 5,034 acres.

Common Oak Moth — Defoliation by the common oak moth, *Phoberia atomaris*, was reported as spotty and heavy in Wayne, Mason, Putnam, Gilmer, Calhoun, Braxton, Kanawha, Jackson, Wood, Wirt, Pleasants, Tyler, Doddridge, Harrison, Lewis, Ritchie, Lincoln, and Roane Counties. This defoliator occurred in conjunction with several other loopers and miscellaneous defoliators: linden looper, small phigalia, half-winged geometer, fall cankerworm, spring cankerworm, forest tent caterpillar, an unknown sphingid larvae, and oak sawfly (*Periclista* sp.). An aerial survey was conducted in central West Virginia to determine acreage and 11,071 acres of defoliation were mapped. Aerial surveys were planned for the western part of the State, but the trees re-foliated before this was accomplished.

Forest Fire

2004 was the 4th wettest year on record in West Virginia. As a result of abundant precipitation, the destructive forces of wildfire were kept to a minimum. In 2004, there were 636 wildland fires, which consumed 7,830 acres. This resulted in an estimated damage of \$2,262,940 to the natural resource. Debris burning and incendiary are the two leading causes of wildfires in West Virginia.

For More Information



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