

Pennsylvania - 2005

Forest Health Highlights



The Resource

Pennsylvania covers a land area of 25,333 square miles and is 59 percent forested. Seventy-five percent of the forest land in the State is privately owned by 513,900 landowners. Yet with a population of 12 million people, forest landowners account for only 4 percent of the total population. Forests provide timber, watershed protection, wildlife habitat, and recreational benefits for all Pennsylvanians.

Weather Conditions

Climate conditions in Pennsylvania fluctuated throughout the year with both temperature and precipitation being above average overall for 2005. Although 2004-2005 winter temperatures were relatively normal, precipitation was well above average. Two major ice storm events occurred and caused significant bole breakage in some areas. Temperatures were well below normal throughout the spring months, while precipitation returned to about average, but then started to decline to below average in May. Temperatures were well above normal in the summer months and precipitation dropped to slightly below average, with some areas experiencing drought. Temperatures in the autumn months remained well above average and precipitation started out below normal in September but was well above average by the end of October. Although the start of the growing season was cool, drier conditions led to an overall decrease in both plant and pest pathogens, such as anthracnose, *Fabrella*, and *Entomophaga maimaiga*.

Forest Pest Issues

Gypsy Moth — There was increased defoliation by gypsy moth, mostly in northeastern Pennsylvania, where aerial and ground surveys recorded 333,335 acres of damage. Egg mass counts are high in the defoliated area and up in other areas of the State. An aerial suppression program is scheduled for qualifying lands in 2006.

Hemlock Woolly Adelgid (HWA) — As of November 2005, 44 counties in Pennsylvania have been infested with this insect. In 2005, the Department of Conservation and Natural Resources, Division of Forest Pest Management (DCNR-FPM) continued biological control efforts with releases of *Sasajiscymnus tsugae* (St), *Scymnus sinuanodulus* (Ss), and *Laricobius nigrinus* (Ln). A total of 238,186 St have been released at 60 sites since 1999. To date, we have recovered 262 adult St and 54 larval St in subsequent visits to these sites. Three hundred Ln were released at each of two sites in Union and Lycoming Counties, bringing the total number released to 1,200 at three sites since 2004. Two larvae were recovered from the 2004 Huntingdon County release site. A total of 1,210 Ss beetles were released at a single site in Huntingdon County. The DCNR-FPM also implemented a chemical suppression program for HWA in 2005. The program protected 4,572 high-value hemlock trees at 41 sites using either soil- or stem-injected imidacloprid.

Elongate Hemlock Scale (EHS) — Throughout 2005, *Cybocephalus nipponicus* (Cn), a predator of EHS, was introduced to aid in control of this pest. A total of 96,000 adults have been released at 32 sites since releases began. In 2005, a total of 251 Cn were recovered at sites where the predator was released in previous years.

Emerald Ash Borer (EAB) — The DCNR-FPM participates in a multiagency effort with the Pennsylvania Department of Agriculture and the USDA APHIS to detect this destructive pest. In 2005, six girdled trap trees were established in six western Pennsylvania counties. No EAB were collected from these trees. In addition, visual inspections for EAB were also all negative.

Early Detection and Rapid Response (EDRR)

— The DCNR-FPM participated in an early detection program targeting exotic bark beetles (Curculionidae: Scolytinae). Eighteen sites were established in 17 counties, and samples were collected every 2 weeks from late March to early June. No new exotic bark beetles were detected, but new county records were reported for some previously detected exotic species.

Sirex Wood Wasp — The DCNR-FPM participated in a multiagency effort to detect the presence of *Sirex noctilio*, a wood wasp recently discovered in northern New York. The DCNR placed four traps in three western Pennsylvania counties. Cooperating agencies placed an additional 23 traps in four northern Pennsylvania counties. No *S. noctilio* were detected by any of the 27 traps. Additional surveillance is planned for 2006.

Miscellaneous Insects — Reportable forest damage was also noted for 24 other pests including **fall cankerworm, eastern tent caterpillar, forest tent caterpillar, lecanium scale, Periclista spp. sawfly,** and other **Geometridae**.

Disease Conditions

Anthracnose — Anthracnose was reported to cause 6,058 acres of damage in 2005 but was not as damaging across the Commonwealth as it was during the 2003 growing season. Drier weather in late spring was not favorable to anthracnose development.

Botryosphaeria Canker — Shoot and twig damage caused by egg laying of periodical cicadas in 2004 produced the ideal substrate for this pathogen to be prevalent in 2005. However, no damage due to this pathogen was reported in 2005.

Sudden Oak Death (SOD) — Forty surveillance plots for the detection of *Phytophthora ramorum*, the causal agent of SOD, were established in 2005. This brings the total number of plots to 77 since 2003. Ninety-six samples from the 2005 plots were tested for *P. ramorum* and were all found to be negative.

Miscellaneous Diseases — Reportable forest damage was also noted for nine other diseases including **ash yellows, elm yellows, Fabrella needle blight, Phytophthora cactorum,** and **white pine blister rust.**

For More Information



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