

# Pennsylvania - 2004

## 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 forestland 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

Precipitation throughout most areas of the Commonwealth was above average from January to November of 2004. September recorded record amounts of precipitation due largely to the remnants of several tropical storms. Winter temperatures were below average, spring temperatures were above average, and summer temperatures were below average in 2004.

### Forest Pest Issues

**Gypsy Moth** — There was minimal defoliation and no spray program in 2004 due to low populations and control afforded by the fungus *Entomophaga maimaiga*. Aerial and ground surveys recorded 16,844 highly localized acres of damage, mostly in northeastern Pennsylvania. Egg mass counts

of these localized populations indicate that a significant risk of spread and defoliation exists for 2005. These areas will be closely monitored next season.

**Periodical Cicada (*Magicicada* spp.)** — Brood X of the periodical cicada emerged in Pennsylvania in 2004. Populations of cicadas were highly localized and patchy. Damage due to egg laying was reported to 13,368 acres and was confined to shoots and foliage. By all accounts, this emergence of Brood X was not as intense as the last emergence of this brood in 1987.

**Hemlock Woolly Adelgid (HWA)** — As of November 2004, 42 counties in Pennsylvania have been infested with this insect. The cold temperatures over the past two winters seem to have reduced adelgid populations in Pennsylvania. Hemlocks are also showing new growth and improved vigor in many areas of the State. In 2004, the DCNR continued biological control efforts with releases of *Sasajiscymnus tsugae* (ST) and *Laricobius nigrinus* (LN). A total of 190,228 ST have been released at sites in 23 counties since 1999. To date, we have recovered a little over 700 ST in subsequent visits to these sites. Some 600 LN have been released at one site in Huntingdon County. No LN have been recovered to date. The DCNR is also in the process of establishing sites for a chemical suppression program using imidacloprid. Currently, 86 of 144 proposed sites have been accepted for this program.

**Elongate Hemlock Scale (EHS)** — Throughout 2004, *Cybocephalus nipponicus* (CN), a predator of EHS has been introduced to aid in control of this pest. Over 42,000 adults of CN, a beetle native to China and Korea, have been released. A total of 40 CN were recovered at sites where the predator was released in 2003. Of the CN recovered, 31 were recovered in October.

**Emerald Ash Borer (EAB)** — The DCNR participates in a multi-agency effort to detect this destructive pest. Lindgren funnel traps baited with 70 percent ethanol and ash foliage were placed at 20 sites in 13 counties. Trap contents were collected weekly from mid-May through mid-July. No emerald ash borers were detected.

**Miscellaneous Insects** — Reportable forest damage was also noted for Fall Cankerworm, Eastern Tent Caterpillar, Bruce Spanworm, Larch Casebearer, *Periclista* spp. Sawfly, and other Geometridae. Combined damage by these pests was less than 7,000 acres.

## Disease Conditions

**Anthracnose** — Anthracnose was reported to cause 2,294 acres of damage in 2004, and was not as damaging across the Commonwealth as it was during the 2003 growing season. Warmer spring temperatures in 2004 were not favorable to anthracnose development and might have resulted in the decreased activity.

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

**Fabrella Needle Blight of Hemlock** — Examination of hemlock stands in 2003 and 2004 revealed the presence of this disease in 22 counties.

**Elm Yellows** — The unusual spring weather led to the appearance of elm yellows crown symptoms in early June, as opposed to early July this year. Symptoms this early in the season can be mistaken for Dutch elm disease.

**Sudden Oak Death (SOD)** — Thirty-five surveillance plots for the detection of *Phytophthora ramorum*, the causal agent of SOD, have been established in 23 counties in Pennsylvania. Ninety-eight samples from these plots were tested for *P. ramorum* and were all found to be negative.

***Phytophthora cactorum*** — The DCNR received many reports of dead and dying English walnut, *Juglans regia*, in Dauphin and Lancaster Counties in early summer. It was later determined that *Phytophthora cactorum* was responsible for widespread mortality of these trees in these areas.

## For More Information



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