

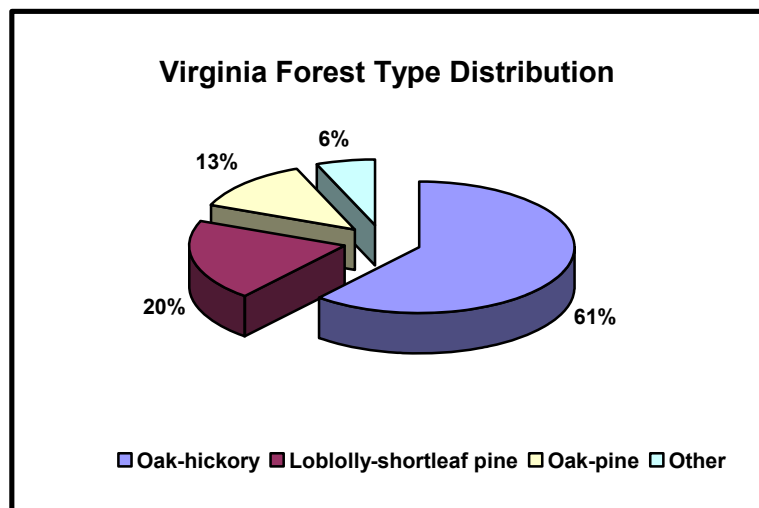
Virginia



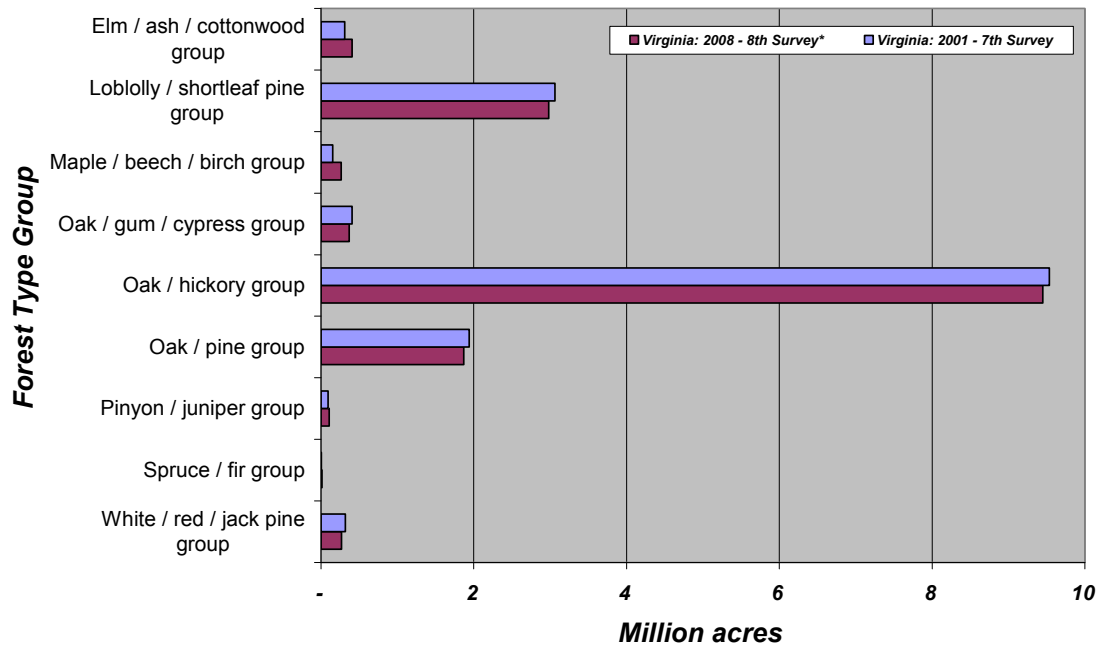
Forest Health Highlights 2009

The Resource

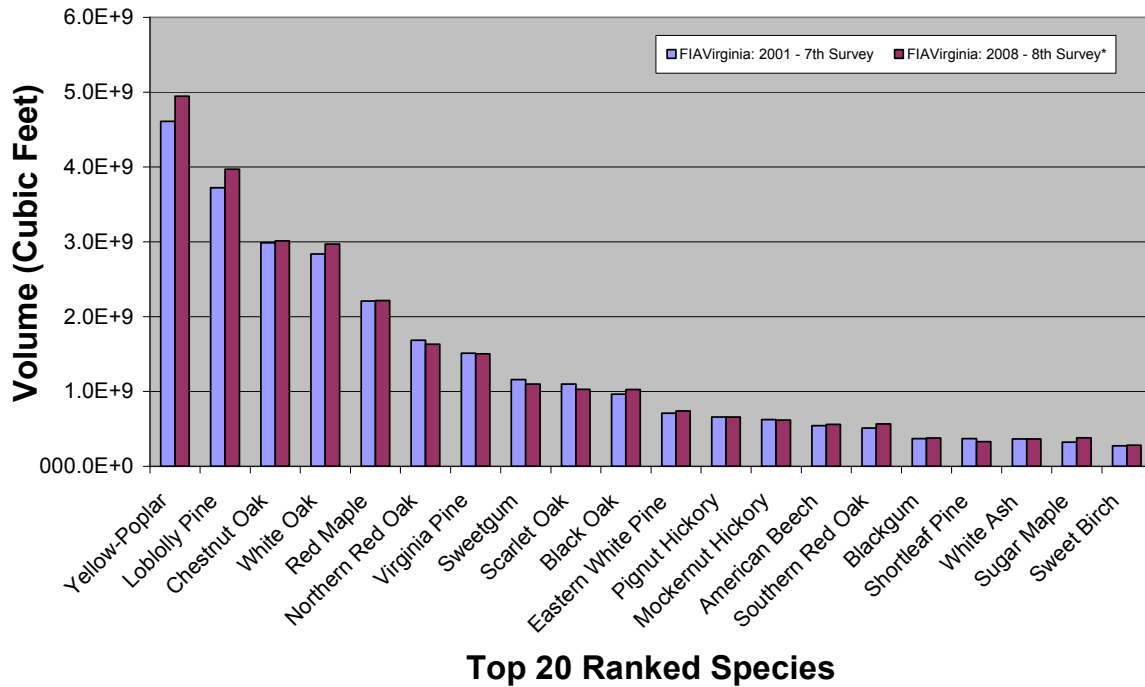
Virginia's forests cover 15.7 million acres, more than 62% of the state's land area. The majority of the state's forested land, some 10 million acres, is in non-industrial private ownership, while approximately 1.6 million acres are in national forests. Virginia's forests are prized for their scenic beauty, supporting tourism and outdoor recreation and providing wildlife habitat from the Appalachian Mountains to the lowlands of the Atlantic Coastal Plain. Major forest types in the state include oak-hickory, loblolly-shortleaf pine, and mixed oak-pine. Other minor types account for 6% of this acreage. The most abundant tree species by volume is tulip poplar, followed by loblolly pine, chestnut oak, white oak and red maple. The most abundant trees species by number of trees is red maple, followed by loblolly pine, tulip poplar, sweetgum, and blackgum. Nearly 85% of Virginia's forests are natural, while 15% are planted. A number of tree species have undergone a significant decline from historical abundance, including table mountain pine, pitch pine, shortleaf pine, eastern hemlock, Atlantic white cedar, and longleaf pine. Restoration efforts are underway for many of these species.



Acres by Major Forest Types

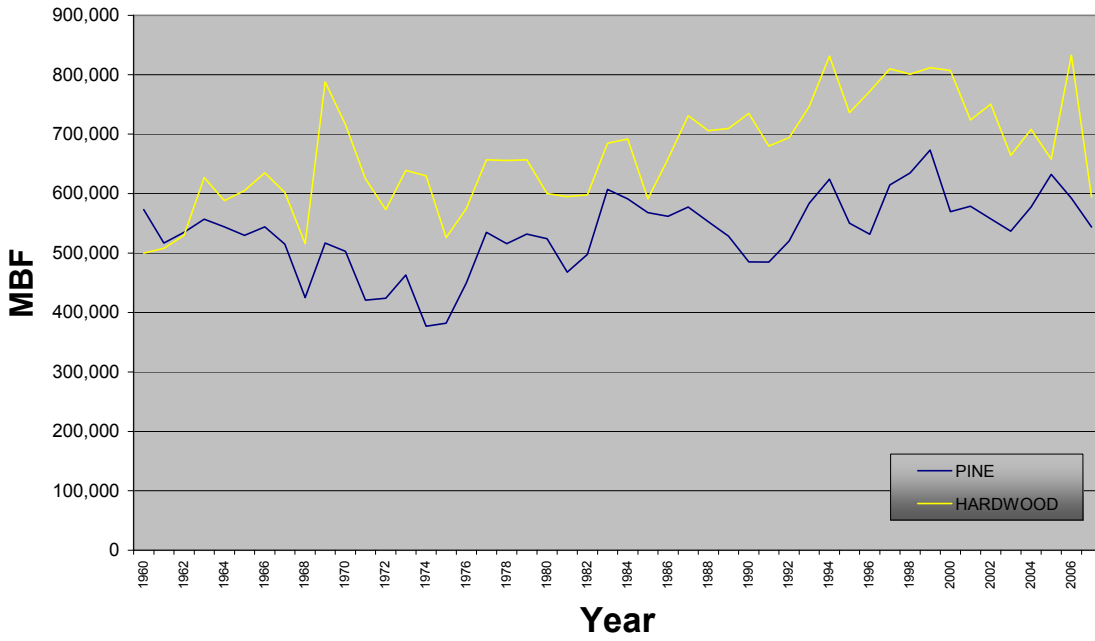


Volume of all live on forestland by species (cu/ft)

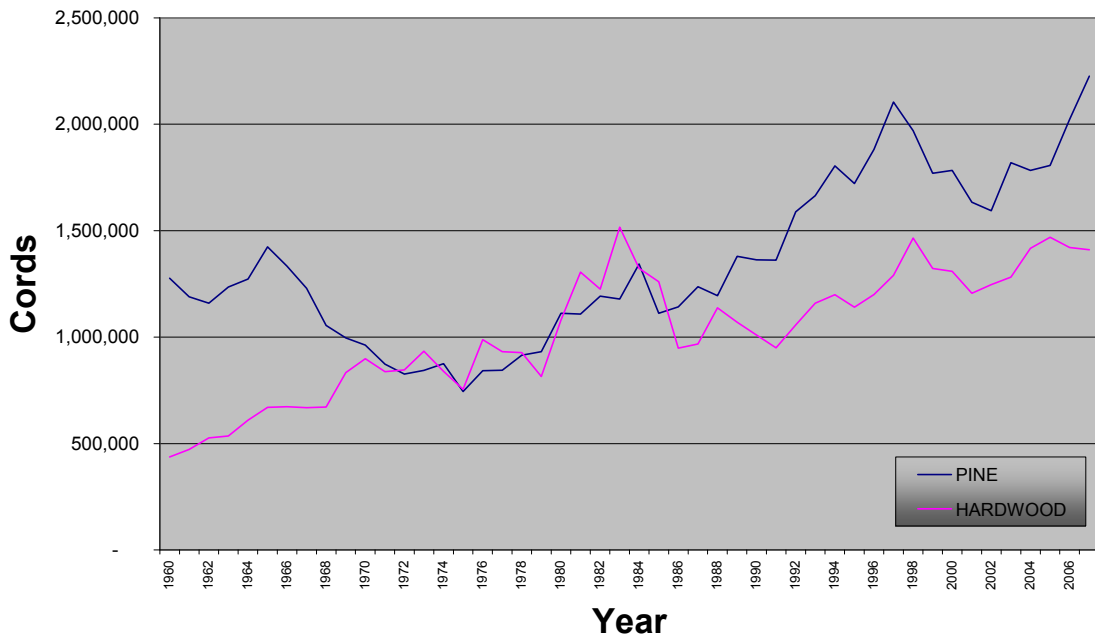


*Source: Miles, Patrick D. 5/14/08. Forest inventory mapmaker web-application version 3.0 St. Paul, MN: U.S. Department of Agriculture, Forest Service, North Central Research Station. [Available only on internet: www.ncrs2.fs.fed.us/4801/fiadb/index.htm]

Virginia: Harvest Volumes



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Forest Influences and Programs

Adding to last year's infestations, in 2009 new infestations of the **emerald ash borer (EAB)** were detected in Fairfax County in multiple locations spanning the breadth of the County. Additionally, adjacent Arlington County detected a new infestation for the first time. Fairfax and adjacent counties and municipalities (Fauquier, Prince William, Loudoun, Arlington, Manassas, Manassas Park) were quarantined by the Virginia Department of Agriculture and Consumer Services in 2008. It appears the infestations are some years old, making it likely EAB has spread to other locations that are as of yet undetected. However, intensive trapping throughout northern Virginia by the Dept. of Agriculture in 2009 has not revealed any new infestations beyond those mentioned.



Fall webworm, *Hyphantria cunea*

An annual occurrence in late summer that typically isn't worth mentioning – this year was notable in that a pretty severe outbreak occurred in Shenandoah Park along Skyline Drive near Big Meadows. Most of the damage was concentrated on black cherry, which was the predominant hardwood species in many areas, but other hosts were affected as well. Many trees were entirely stripped of leaves and completely enclosed in webbing. The entire area affected encompassed approximately 20,500 acres.

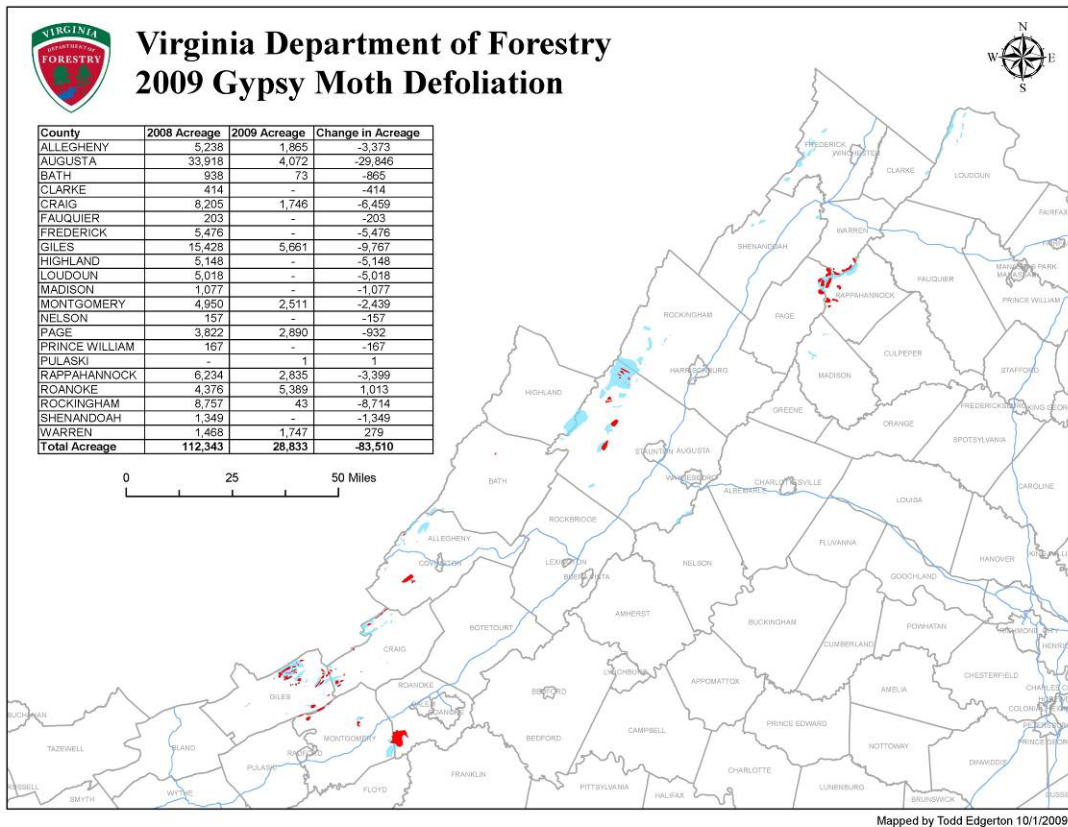


Virginia pine sawfly, *Neodiprion pratti pratti*

Scattered reports of sawflies occurred this year, most notably in Madison County, where approximately 350 acres of Virginia pine were reported to have light to moderate defoliation.

Gypsy Moth

Wet spring weather led to a significant decline in gypsy moth populations due to the effectiveness of *Entomophaga maimaiga* under these conditions. State-wide defoliation levels had been steadily rising since 2005, with each successive year producing another dry spring. Last years total defoliation was over 112,000 acres of mostly heavy defoliation. This year we were down to **29,000 acres of defoliation**, most of which was classified as light. These scattered infestations were present in 12 counties from Northern Virginia down the Appalachians and scattered pockets of the Blue Ridge to the Blacksburg-Roanoke area. Significant oak mortality following multiple years of defoliation is visible in places, most notably Poor Mountain in Roanoke/Montgomery Counties, parts of the Jefferson National Forest in northwest Giles County, and parts of the George Washington National Forest in northwest Augusta and southwest Rockingham Counties.



Southern pine beetle (SPB) numbers remain low in most places based on the spring trapping survey results and relatively few reports. A few hotspot areas during the last couple of years seemed to have stabilized somewhat. **In total, 25 spots amounting to 14,254 trees (average 570 trees per spot) and 71 acres across 7 counties were detected.** No spots were reported on federal land and no counties were in outbreak status. Affected counties were concentrated in the south-central Piedmont and included Caroline, Charlotte, Halifax, Lunenburg, Nelson, Northampton and Nottoway.

SPB Prevention Program

After approximately five years, the SPB Prevention Program has provided federal cost-share dollars for pre-commercial thinning (PCT) on approximately 25,000 acres throughout Virginia. On July 1, we began a new logger incentive program for first thinning of small parcels between 10-40 acres in size. The logger incentive is not a cost-share payment but a direct, fixed payment of \$2,000 per job. The rationale for this program is that small parcels are rarely profitable for loggers to travel to; the average cost of moving their equipment to a site is approximately \$2,000. Therefore, it is much more difficult to entice a logger to visit a small parcel in need of a thinning. With this incentive, we insure that the expanding acreage of pine parcels below 40 acres can also benefit from best management practices for mitigating bark beetle impacts.

The hemlock woolly adelgid continues to cause significant hemlock decline in many areas, although trees in some areas that have supported infestations for many years are still hanging on. Despite the continued spread into most areas of the range in Virginia, hemlock mortality levels have stabilized over the last five years. The release of predators of the adelgid is on-going in Virginia and other states and offers some long-term hope of reducing the impacts of the adelgid on the hemlock resource.

Oak decline, abiotic and biotic decline

Oak and other hardwood decline continues to be widespread throughout the Commonwealth due to past drought, past storm events, and most recently, gypsy moth defoliation. Gypsy moth defoliation has affected a

number of areas in the Appalachian mountains over multiple years. Many oak trees that were not killed outright were subject to severe stress. These widespread stress factors led to tree mortality precipitated by numerous biotic agents, including *Armillaria*, *Hypoxylon* canker, ambrosia beetles, two-lined chestnut borer, oak carpenter worm, and red-oak borer. This mortality has continued through 2009 and has likely been exacerbated in some areas by drought, although the latter condition has abated for 2009.

Storm Damage

Relatively little storm damage occurred compared to past years, although some surveyed locations registered small areas impacted by strong winds and hail. A hail storm in June defoliated almost 400 acres along Rt. 211 and the New Market Gap crossing over Massanutten Mountain. Other severe weather included a small outbreak of tornados in Campbell County in mid-July. Approximately 100 acres of oak, pine, and poplar were reported destroyed. Virginia was not impacted by any tropical systems in 2009.

Forest Health Assistance in Virginia

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