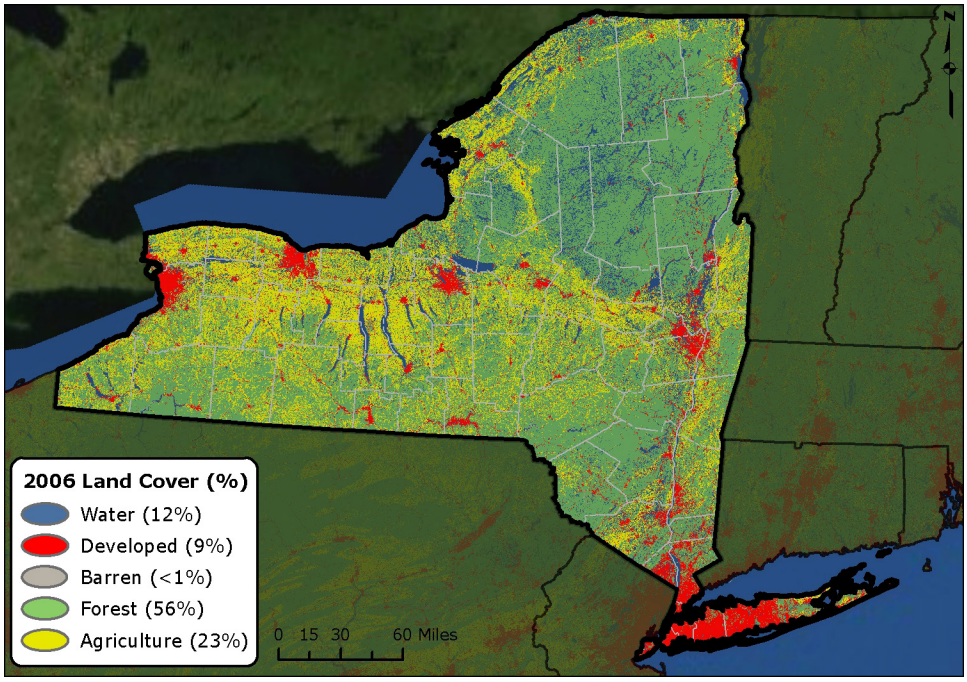
2013 Forest Health highlights

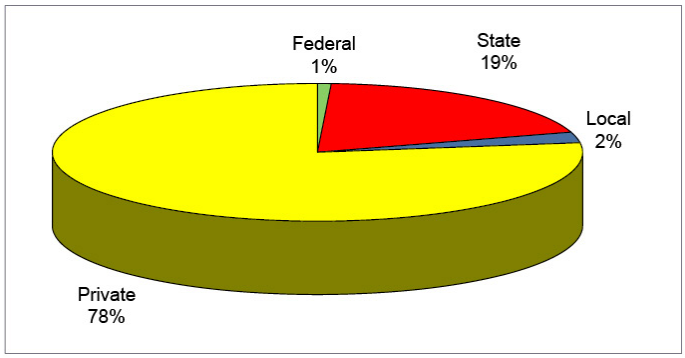
NEW YORK

Forest Resource Summary

New York's forests are 78 percent privately owned. The 19 percent of the land that is owned by the State mostly encompasses the Adirondack Park. These forest lands provide a recreational base for millions of residents and others visiting the State's scenic regions. New York's forests also produce timber, providing employment to 2 percent of the State's workforce. Wood products manufacturing provides $2.4 billion annually to the State's economy. The latest New York forest inventory estimated that 56 percent of the State is forested—approximately 18.7 million acres—and 23 percent is in agriculture. The forest resource is made up of a variety of forest types, mostly maple and other hardwoods, along with pine, oak, and eastern hemlock.



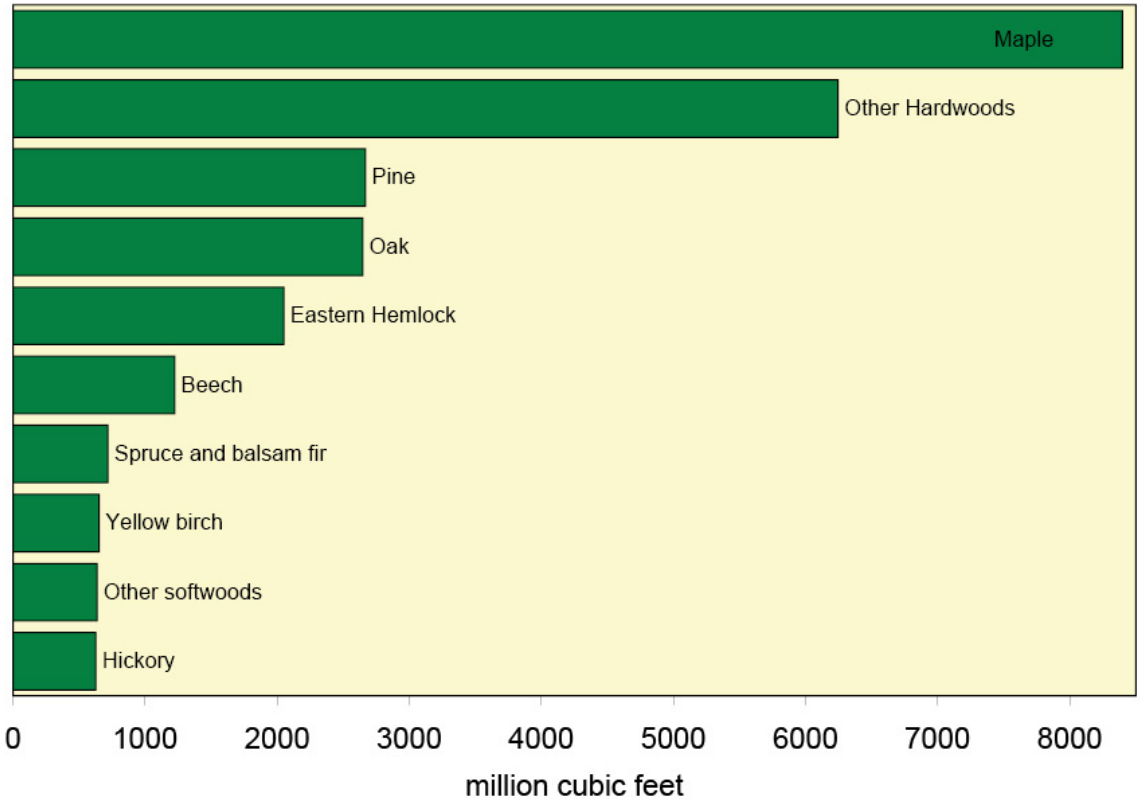
Forest Land Ownership in New York, 2007



Forest Health Programs in the Northeast

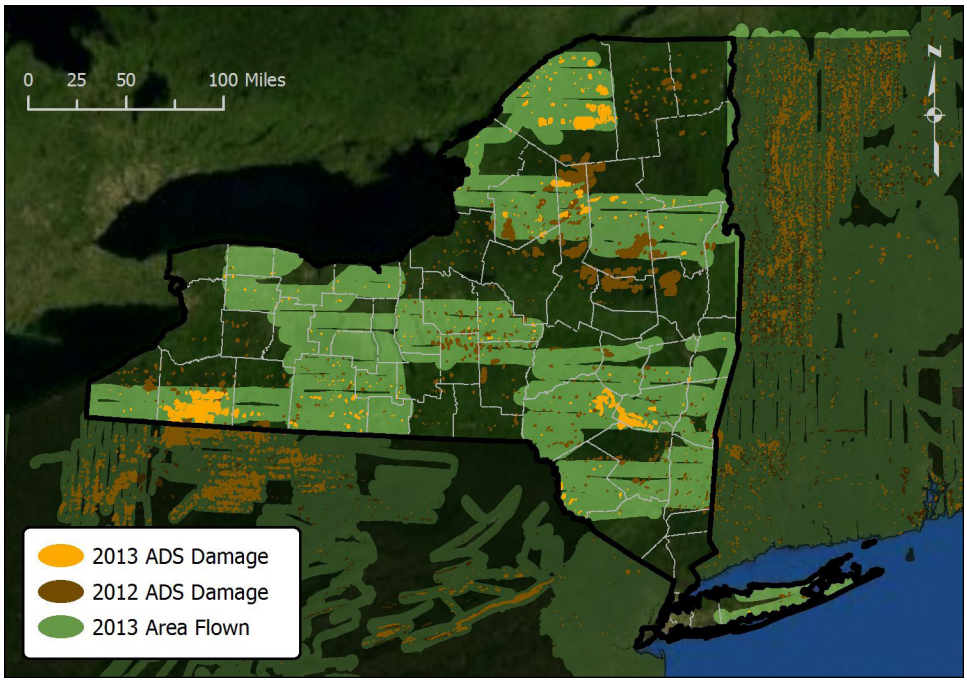
State forestry agencies work in partnership with the U.S. Forest Service to monitor forest conditions and trends in their State and respond to pest outbreaks to protect the forest resource.

Forest Species by Volume in New York, 2007



Aerial Surveys

In New York State, damage mapped from the 2013 forest health aerial survey totaled over 400,000 acres. **Gypsy moth defoliation** in western New York was by far the largest single factor, accounting for over 160,000 acres of damage. Damage caused by **weather events** totaled more than 85,000 acres, as detailed in the next section.



Aerial detection survey (ADS) results for New York in 2012 and 2013.

Forest Damage

Weather Events

The effects of Hurricane Sandy in October 2012 were still evident in the form of saltwater injury in coastal areas and wind damage in the Catskills and Hudson Valley. Significant frost damage from 2010 added to the cumulative impact on forest vigor in the Catskills and Hudson Valley area.

A wet spring and summer in 2013 resulted in additional flooding of about 16,000 acres statewide, with half of that occurring in St. Lawrence County. Finally, a June 2013 hailstorm resulted in over 3,500 acres of damage in eastern New York centered around Rensselaer County.

Tornado damage as seen during aerial survey. (Photo: Scott McDonnell, New York State Department of Environmental Conservation)

Insects

Several invasive insects are a concern in New York. **Emerald ash borer** is currently the most significant invasive insect species in the State. In 2013, this insect was positively confirmed in six new counties: Cayuga, Delaware, Onondaga, Ontario, Otsego, and Rensselaer. Research activities and efforts to slow ash mortality are being conducted in all of the infested areas of New York.

Cooperative efforts to eradicate **Asian longhorned beetle** from the quarantined areas in New York City and Long Island are ongoing. New infested trees were found in West Babylon, just outside the central Long Island quarantine zone, after a private citizen who saw publicity about the Department of Environmental Conservation's "swimming pool" survey reported and photographed adult beetles in their backyard.

In 2013 **gypsy moth** populations rose significantly, with an increase of approximately 150,000 acres of damage from the previous year. The most severe defoliation was observed in southern Cattaraugus County, with less severe conditions trailing into Allegany County, all totaling 160,000 acres. Other less significant areas of gypsy moth defoliation were seen in Sullivan County along the New Jersey border, totaling approximately 6,000 acres, and in Suffolk County on Long Island, totaling 75 acres.

Serpentine galleries of the emerald ash borer. (Photo: New York State Department of Environmental Conservation)

Hemlock woolly adelgid continues to cause damage and to kill native forest and ornamental eastern hemlock trees. Three new counties (Otsego, Rensselaer, and Wyoming) were found to be infested in 2013. Damage is most severe in areas that have been infested for several years in the Catskills and southern part of the State; however, hemlocks are beginning to die in several infested stands within the Finger Lakes region. In some areas, a majority of the trees are infested, and many of those are in declining health or dead. In cooperation with State Parks and Cornell Cooperative Extension, the Department of Environmental Conservation applied predatory beetles and pesticide treatments in some specific areas to slow or reduce hemlock mortality.

Elongate hemlock scale is common in approximately the same range as hemlock woolly adelgid and is often, but not always, found in the same stands. Damage from the scale is hard to separate from damage by the adelgid at times, but both have caused significant decline and mortality of hemlocks.

Much of the State is likely infested with **Sirex woodwasp**, although no new affected counties were detected in New York in 2013. Within the known infestation, much of the worst damage is still found in pine plantations that are overstocked, overmature, or otherwise in declining health.

Pathogens

Oak wilt was detected in New York for the first time in 2008 in Schenectady County in the town of Glenville, where at least six oaks had been killed. In winter 2008–2009, 73 infested or likely-to-become-infested trees were destroyed. In September 2013 two more trees in the same residential neighborhood were confirmed to be infected.

Beech bark disease can be found readily throughout New York State. The symptoms of **Dutch elm disease** are also conspicuous statewide. Many of the trees now succumbing to Dutch elm disease are mature trees in urban and suburban settings that survived the initial wave of the disease throughout the region. **Butternut canker** is common in New York wherever butternut is found. It is rare to see a symptom-free butternut tree.

Dogwood anthracnose continues to affect understory and ornamental flowering dogwoods across the State. This disease was not reported from any new areas in 2013.

Invasive Plants

Giant hogweed, a noxious invasive plant that causes a severe skin reaction, is present in 45 New York counties. Currently the plant is known to be on 1,188 sites, with the largest and densest of these in the western half of the State. This was the sixth year of manual eradication and the fifth year of herbicide use. During the 2013 field season (late April through September) crews visited a total of 1,427 sites: 593 sites were treated by root cutting, and 486 sites were treated with herbicide; 348 sites that were treated previously had no giant hogweed plants in 2013. The giant hogweed hotline received and returned a total of about 600 calls and 800 e-mails; the giant hogweed main Web page was viewed over 345,000 times.

Approximately one-quarter of all sites now have no giant hogweed plants, indicating that control methods have been successful. Small sites can be eradicated fairly quickly. Of the larger sites, many have fewer plants and fewer large flowering plants as well.

Kudzu has been present in New York since at least the early 20th century, when it was promoted for use in erosion control. Until the past few years, however, there has been

little formal tracking of populations. Concern is growing that a warming climate will allow the species to become as problematic for New York as it has been farther south for decades. In 2013 the Department of Environmental Conservation, Long Island's Partnership for Invasive Species Management, New York City Parks Department, and others formed a kudzu task force to thoroughly inventory all kudzu infestations in the State and prioritize them for management. Currently over 50 such infestations are known, stretching from eastern Long Island as far as the mid-Hudson Valley.

References

Land Cover Map:
U.S. Geological Survey. 2011. 2006 National land cover dataset. Sioux Falls, SD.

Forest Land Ownership, Forest Species by Volume:
U.S. Department of Agriculture, Forest Service. 2009. Forest resources of the United States, 2007. Gen. Tech. Rep. WO–78. Washington, DC. 336 p.

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