

2012

Forest Health

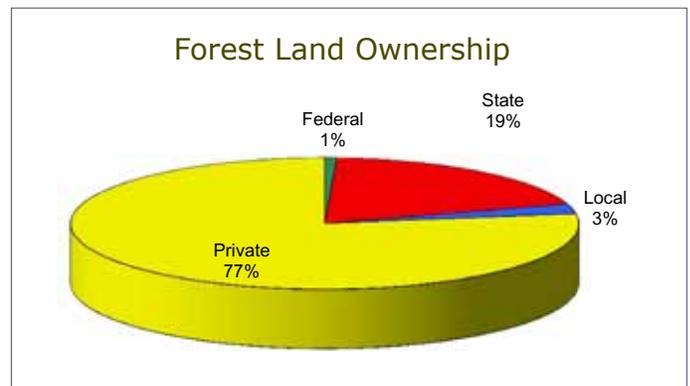
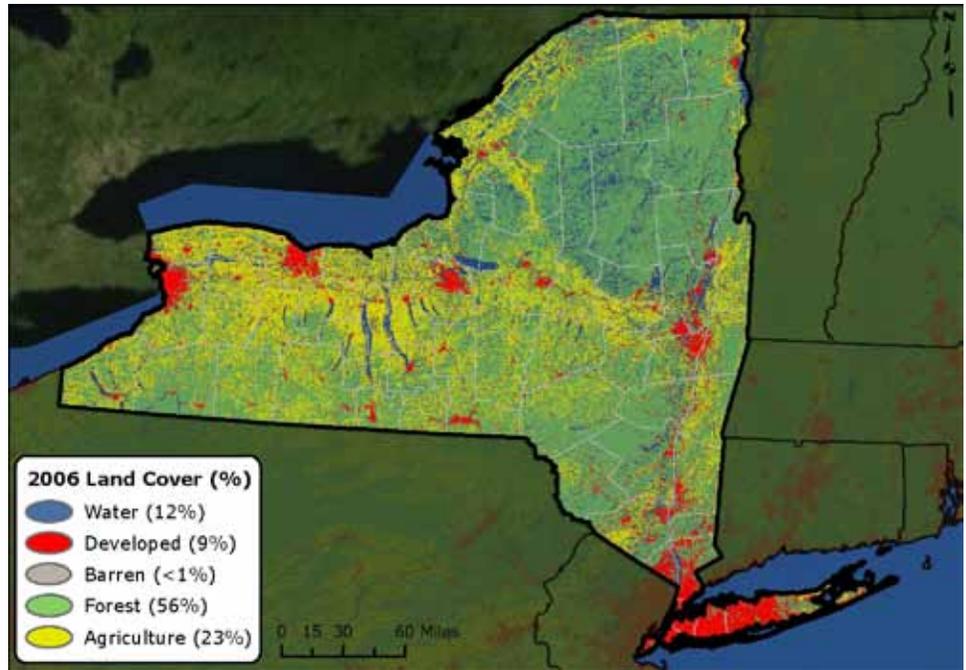
NEW YORK

highlights



Forest Resource Summary

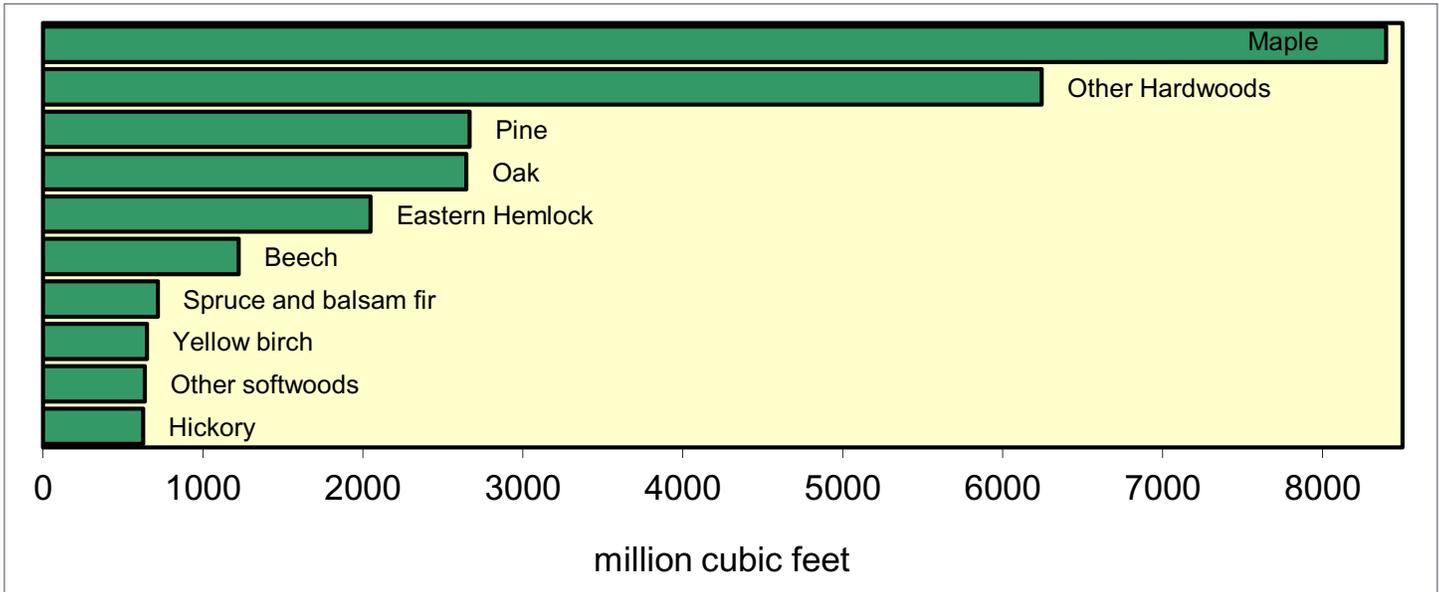
New York's forests are 78 percent privately owned. The State owns 19 percent of the land, which mostly encompasses the Adirondack Park. These forest lands provide a recreational base for millions of residents and others visiting the State's scenic regions. New York's forests also produce timber, providing employment to 2 percent of the State's workforce. The manufacture of wood products provides \$2.4 billion annually to the State's economy. The latest New York forest inventory estimates that 57 percent of the State is forested—approximately 18.7 million acres—with 22 percent 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 Health Programs in the Northeast

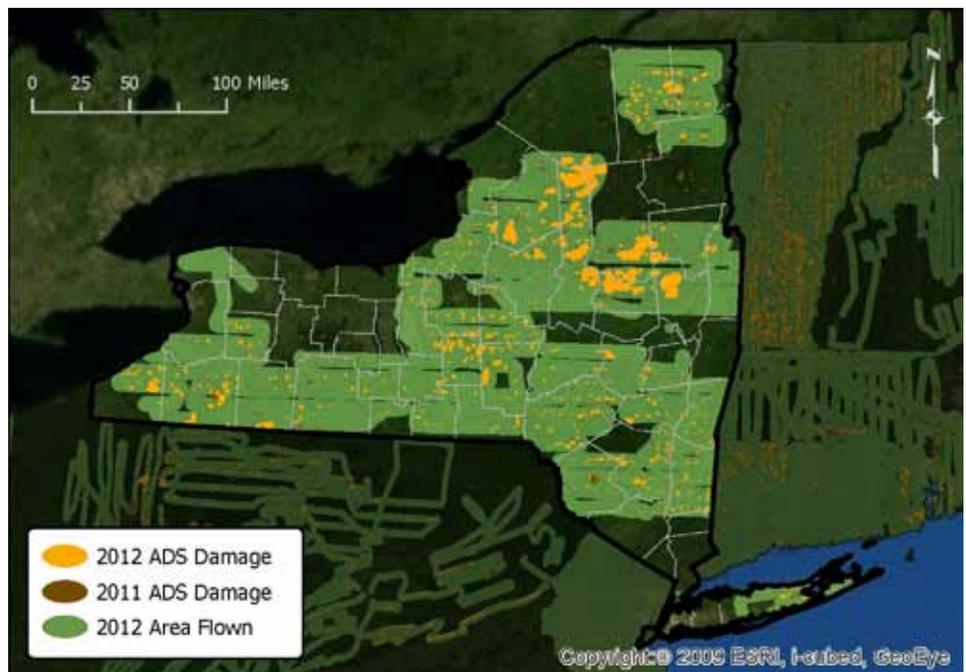
State forestry agencies work in partnership with the U.S. Forest Service to monitor forest conditions and trends in their State and respond to pest outbreaks to protect the forest resource.

Forest Species Type



Aerial Surveys

In New York State, damage mapped from the 2012 forest health aerial survey totaled over 700,000 acres. The majority of the damage was caused by **drought** and defoliation in the Adirondack, Central New York, Southern Tier, Hudson Valley, and Catskill Regions. Mortality, caused by previous years' defoliation from the **forest tent caterpillar**, was seen in the western Southern Tier, Central New York, and Catskill Regions.



This map delineates aerial detection survey (ADS) results for New York in 2012 and 2011.

Other major damage included **gypsy moth** defoliation and associated mortality in the western Southern Tier Region and hardwood/softwood **decline** concentrated in the southern Adirondack Region. Mortality from **frost** damage was observed in the western Southern Tier, Central New York, and northwestern Catskill Regions. Mortality and discoloration from **inundation** was focused in the Hudson Valley and Central New York Region.

Forest Damage

Weather Events

A very warm and dry early spring affected the health of both urban and rural forest trees in 2012. While the statewide impacts are difficult to quantify, local damage ranging from discoloration of foliage to mortality of weaker and declining trees was frequently attributed to drought, often in conjunction with insects and/or diseases.

Winds from Hurricane Sandy damaged and uprooted urban and forest trees in Long Island, New York City, and the lower Hudson Valley in October. Nearly 10,000 trees were lost in New York City alone.

Insects

There are several invasive insects of concern in New York. The **emerald ash borer** is currently the most significant invasive insect species in the State. In 2012, this insect was positively confirmed in three new counties: Dutchess, Tioga, and Niagara. Emerald ash borers were collected in purple prism traps in all infested counties. Research activities and efforts to slow ash mortality (SLAM) are being conducted in all of the infested areas of New York (figure 1).



Figure 1.—Management of emerald ash borer infestation.

Cooperative efforts to eradicate **Asian longhorned beetle** from the quarantined areas in New York City and Long Island are ongoing; although survey progress is slow, no new infestations were found in the area in 2012.

Noticeable **gypsy moth** defoliation was seen in parts of western New York, and subsequent egg mass surveys indicate that there will likely be some outbreak-level populations in 2013.

Hemlock woolly adelgid continues to cause damage and mortality to native forest and ornamental eastern hemlock trees. Five new counties (Cayuga, Livingston, Schenectady, Steuben, and Wyoming) and 26 new towns were found to be infested in 2012. A mild winter may have been a contributing factor to a boom in local populations. Damage is most severe in areas that have been infested for several years in the Catskills and southern part of the State. 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, predatory beetles and pesticide treatments have been applied 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.

It is assumed that much of the State is likely infested with **Sirex woodwasp**, although no new affected counties were detected in New York in 2012. Within the known infestation, much of the worst damage is found on State-owned pine plantations, many of which are overstocked and 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 the winter of 2008–2009, 73 infested or likely-to-become-infested trees were destroyed. No new infested trees have been found in the infested area, and no new infested sites have been found elsewhere in the State. After four consecutive years of negative surveys, we are declaring that oak wilt has been successfully eradicated from the State.

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. The New York State Department of Environmental Conservation has begun archiving locations of healthy butternut when found or reported.

Dogwood anthracnose continues to affect understory and ornamental flowering dogwood across the State. This disease was not reported from any new areas in 2012.

Invasive Plants

Giant hogweed, a noxious invasive plant that causes a severe skin reaction, is present in 43 counties in the State. There are 1,240 known populations of the plant, with the largest and densest of these found in the western half of the State. This was the fifth year of manual eradication and the fourth year of herbicide use. During the 2012 field season (late April through September) 1,099 sites were visited by six field crews: 516 sites controlled by root cutting, 289 sites controlled with herbicide, and 294 sites that were controlled previously that had no plants found in 2012. The giant hogweed hotline received and returned a total of 961 calls and 1,029 e-mails; the giant hogweed main Web page was viewed 65,044 times.

Approximately one-quarter of all sites now have no giant hogweed plants, indicating that our control methods have been very successful (figure 2). We have found that small sites can be eradicated fairly quickly. For larger sites, crews are reporting that many sites have fewer plants and that they are seeing fewer large flowering plants as well.

Site #175 (Steuben County). Root-cutting control is very effective.



Site #373 (Wyoming County). This site is located directly behind a school and shows the amazing progress at a larger site after 3 years of herbicide control.



2009



2012

Site #950 (Ontario County). After two years of herbicide control there are now 80% fewer plants.



Figure 2.—Eradication of giant hogweed.

References

Land Cover Map:

U.S. Geological Survey. 2011. 2006 National land cover dataset. Sioux Falls, SD.

Forest Land Ownership, Forest Species Type:

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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