

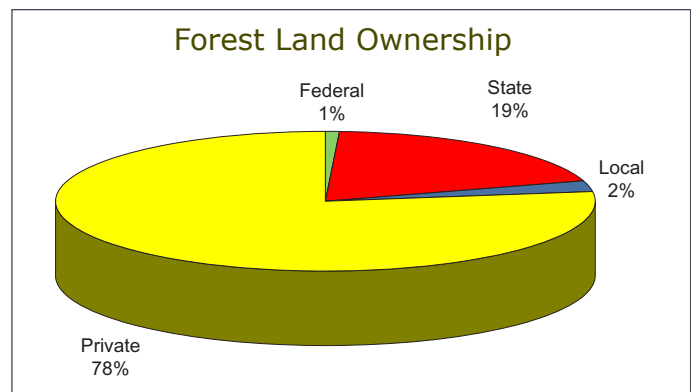
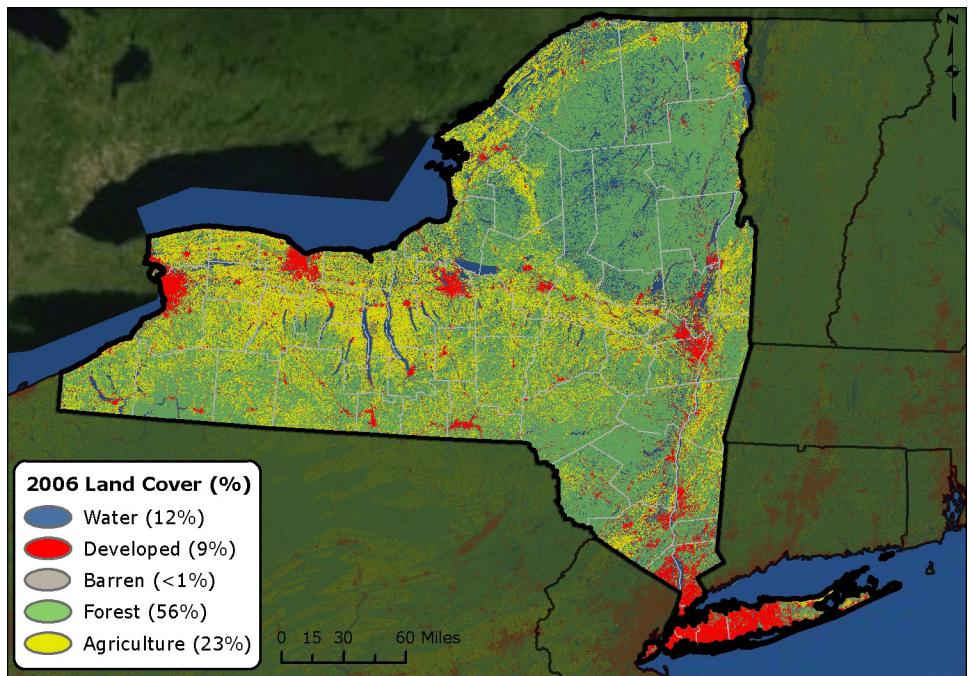
2011 Forest Health highlights

NEW YORK



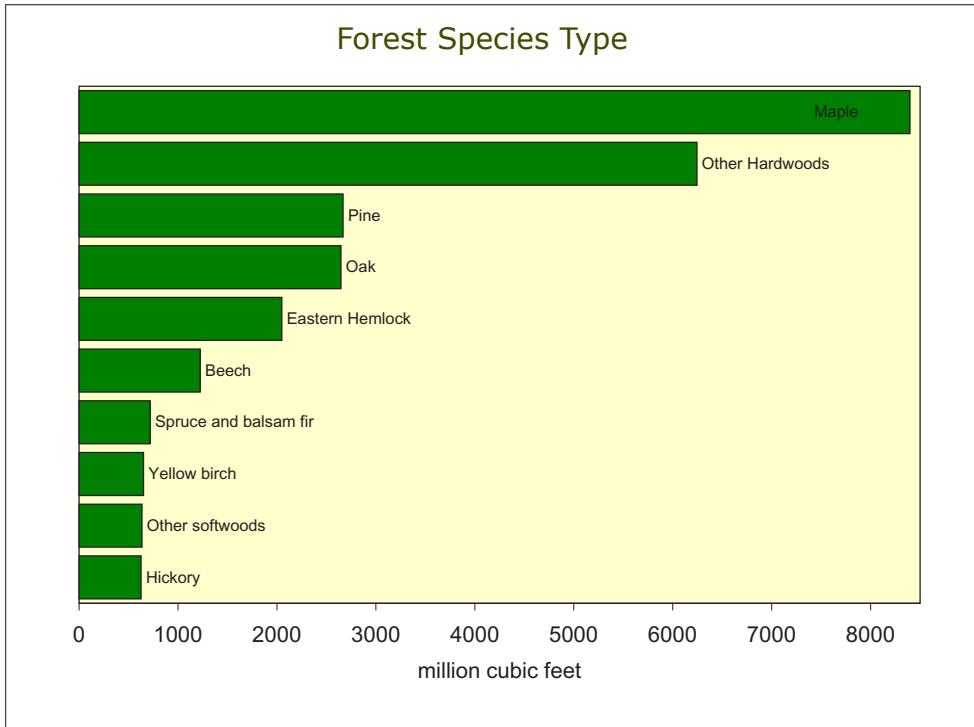
Forest Resource Summary

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 there are approximately 18.7 million acres in the State that are forested. The forest resource is made up of a variety of forest types, mostly maple and other hardwoods, along with pine, oak, and eastern hemlock.



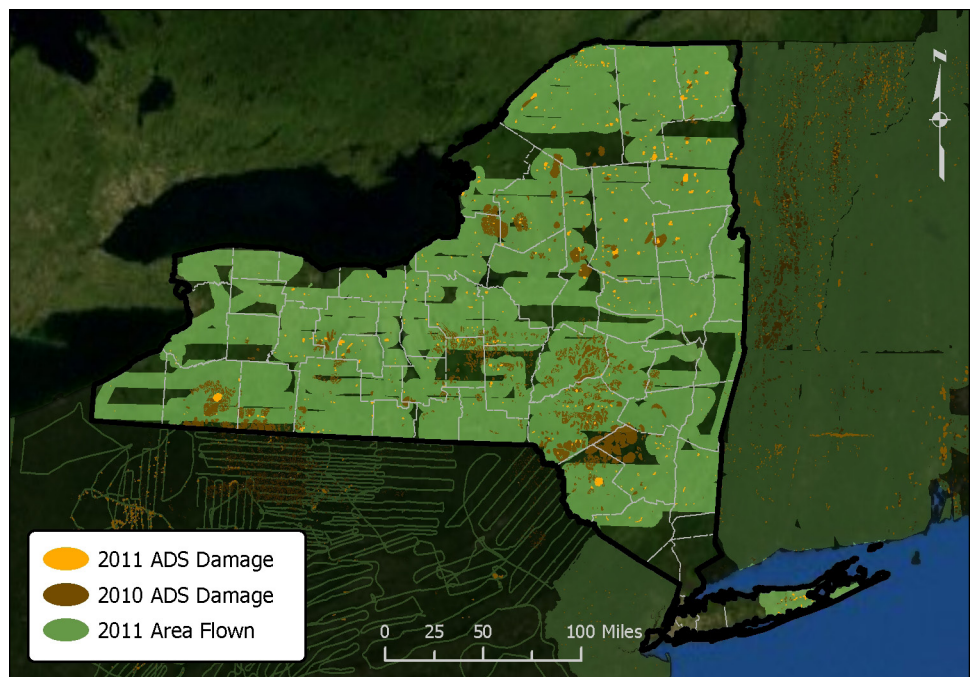
Forest Health Programs in the Northeast

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.



Aerial Surveys

In New York, about 110,000 acres of forest damage were observed. A significant amount of damage was a result of flooding from heavy rains. Areas of hardwood defoliation were also observed, especially from forest tent caterpillar, gypsy moth, cherry scallop shell moth, and anthracnose foliar diseases. Decline and mortality of oak, ash, spruce, and fir occurred at various locations. Several areas in the Adirondacks exhibited discoloration and mortality from prolonged abiotic effects of previous drought and poor soil conditions.



This map delineates aerial detection survey (ADS) results for New York in 2011 and 2010.

Forest Damage

Native Defoliators

Forest tent caterpillar was again the most significant defoliator in New York in 2011. Approximately 21,270 acres were confirmed as defoliated. Damage occurred in the Catskills and west throughout the central part of the State including the counties of St. Lawrence, Franklin, Cayuga, Niagara, Onondaga, Madison, Otsego, Schoharie, Cortland, Allegany, Yates, Cattaraugus, Delaware, Sullivan, and Erie. Overall, the population has declined; this [year's defoliation] is less than 20 percent of the land area defoliated last year.

Locust leafminer caused patches of moderate discoloration and defoliation on black locust over portions of eastern New York, especially the lower to mid-Hudson River Valley in Dutchess, Putnam, Orange, and Ulster Counties. Damage began early in the season as it has for the past few years. No significant defoliation by **spruce budworm** was observed in 2011.

Exotic Insects

In 2011, three new counties had positive confirmations of the **emerald ash borer** including Albany, Erie, and Orange (figure 1).

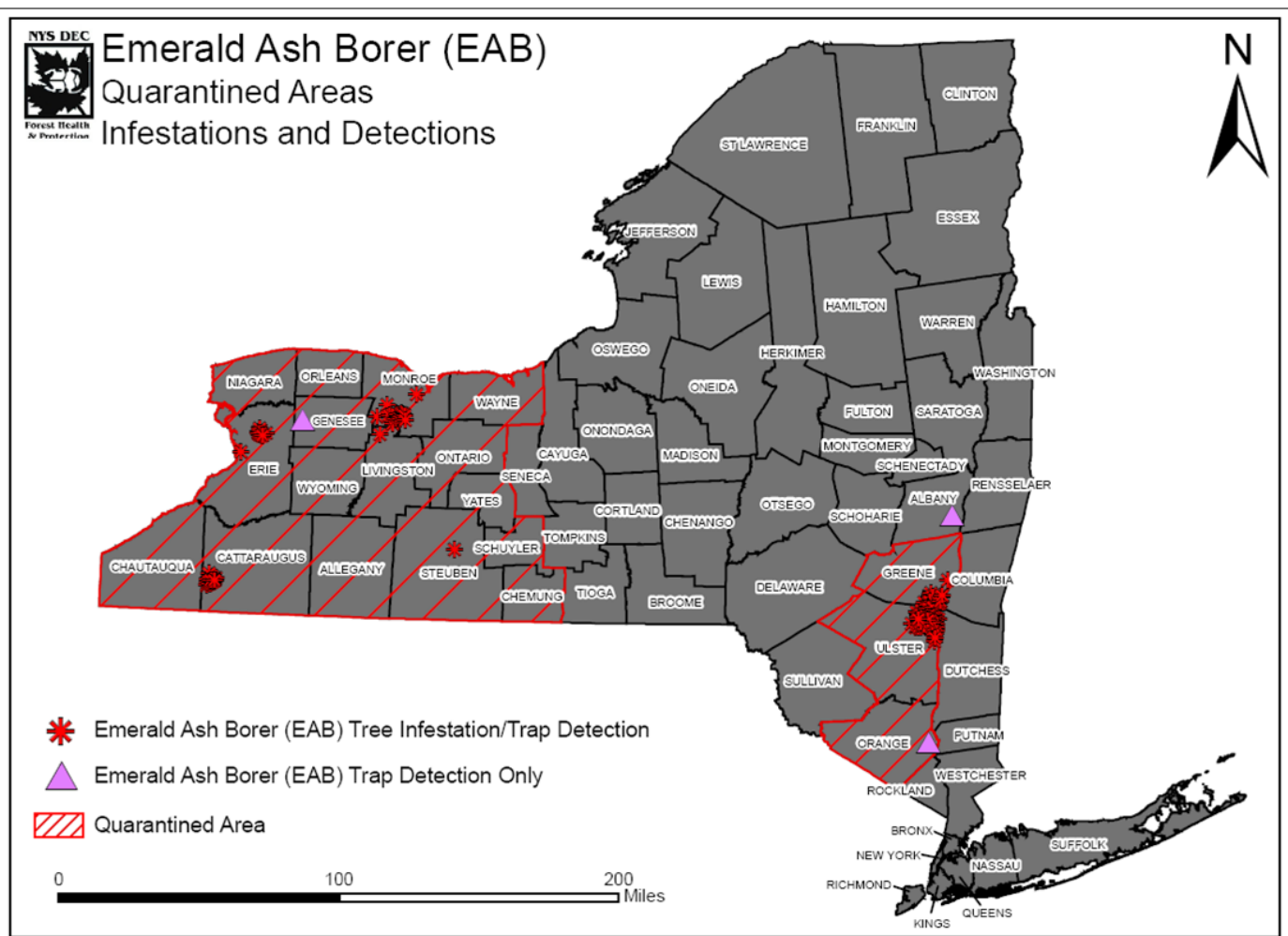


Figure 1.—Emerald ash borer quarantine area in the State.

The Albany and Orange County infestations were found by purple prism trap catches, while the Erie County infestations were found by citizens and tree care professionals. Research and Slow Ash Mortality activities are ongoing at all infestations, including population trap tree sinks, targeted host removals, use of insecticides and biocontrol agents, and community preparedness planning (figure 2).



Figure 2.—Removal of trees infested with emerald ash borer.

There was a new county record for **hemlock woolly adelgid** in Schoharie this year in Mine Kill State Park. The adelgid continues to cause damage and mortality to native forest and ornamental eastern hemlock trees. Damage is most severe in areas that have been infested for several years in the Catskills and southeastern New York. In some areas, a majority of the trees are infested, and many

of those are in declining health or dead. The adelgid caused approximately 425 acres of extreme dieback or mortality this year.

The **elongate hemlock scale** is common in approximately the same range as hemlock woolly adelgid in the Hudson Valley Catskills Region, and often, but not always, found in the same stands. The scale occurs in Delaware, Greene, Sullivan, Ulster, Orange, Rockland, Columbia, Dutchess, Putnam, and Westchester Counties. 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.

Cooperative efforts to eradicate the **Asian longhorned beetle** from the quarantined areas in New York City are ongoing (figure 3). The Islip infestation has been declared eradicated. No new infestations were found. Trapping continued at DEC campgrounds identified as high risk by the zip code survey.

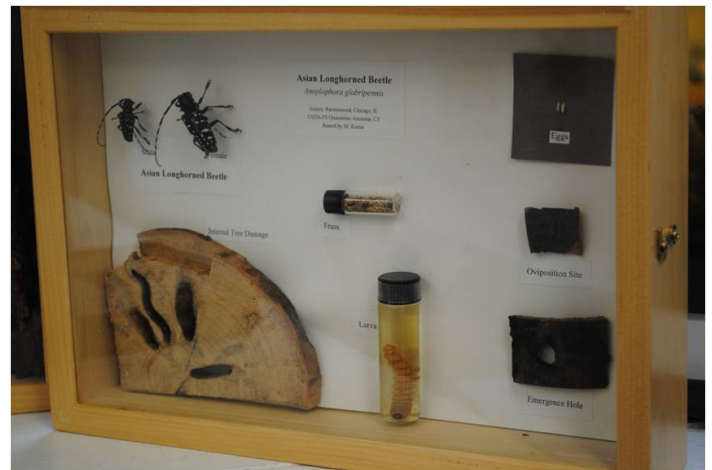


Figure 3.—Display of Asian longhorned beetle life stages and damage.

Approximately 100 purple prism traps were placed in Monroe County to survey for the **European oak borer**; there were no new detections from this survey. There were also no additional counties found infested with the **common European pine shoot beetle** in 2011.

Gypsy moth accounted for approximately 65 acres of defoliation in Seneca, Yates, Cattaraugus, and Schuyler Counties. The **winter moth** is present on eastern Long Island; however, there were no reports of defoliation.

No new counties detected the **Sirex wood wasp** in New York in 2011, although most of the State is likely infested. 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.

Forest Diseases

Beech bark disease can be found readily throughout New York State. In addition, symptoms of **Dutch elm disease** are conspicuous statewide. Many of the trees now succumbing are mature individuals in urban and suburban settings that survived the initial wave of the disease through the region.

Thousand cankers disease, a threat to walnut in the Eastern United States, was recently detected in Pennsylvania. In New York, 30 counties were surveyed for the disease, which is vectored by a tiny twig beetle. No symptomatic trees were found that warranted sending samples to the lab.

Butternut canker is common in New York wherever butternut is found, and it is uncommon to see a symptom-free butternut. This disease was not reported in 2011; however, it is known to occur statewide. State foresters have begun archiving locations of healthy butternut when it is found or reported, but the dataset is far from complete.

Dogwood anthracnose continues to affect understory and ornamental flowering dogwood across the State, although very little damage was observed this year. This disease was not reported from any new areas, although it is assumed to occur statewide.

Aerial and ground surveys for **oak wilt** yielded no new infested trees. This disease 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 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 areas have been found elsewhere in the State.

No New York Department of Environmental Conservation surveys were conducted in 2011 for ***Phytophthora ramorum***, the causal agent of **sudden oak death** on the West Coast. A positive find for the organism was reported by USDA APHIS from a water collection pool at a nursery in New York in 2010 and a followup survey is planned for 2012. Intensive surveys on Long Island indicate that the 2004 report of an infected oak was false and the pathogen is not present at that site. Nursery surveys of transported plant material will continue.

While surveying for emerald ash borer, many stands were observed with symptoms of **ash decline**. Native ash borers were often present in these stands, and several cases of **ash yellows** were found in these stands as well.

No survey for **bacterial leaf scorch** was made in 2011. There were previous positive finds in Westchester County, Rockland County, and Kings County in Brooklyn.

Abiotic Damage

Hurricane Irene and **Tropical Storm Lee** caused considerable damage throughout the Hudson Valley and central New York, and north into the eastern Adirondacks. High wind caused considerable damage but high water was more significant. Many trees came down due to oversaturated soil not being able to hold the roots. No aerial survey was conducted because emergency response took first priority.

Other Invasive Pests

Giant hogweed is present in 38 New York counties statewide (figure 4). There are approximately 800 known populations of the plant, with the largest and densest of these found in the western half of the State. This year was the fourth year of manual eradication and the third year of herbicide use. While more hogweed sites are being found, mostly due to better outreach and education, eradication efforts are having a noticeable effect on the size of the affected site.

In 2011, **kudzu** was found at two sites in Westchester County. These infestations were cited in literature from the 1980s but only tracked down and confirmed by New York State this year. Eradication work is ongoing at the Rockland kudzu infestation. Vine removal and root cutting were performed by hand at all of the sites (figure 5). Plans for spring 2012 include more hand work and the application of herbicide.



Figure 4.—Infestation of giant hogweed, a noxious plant.

No formal survey for **feral pigs** or resulting damage was conducted this year; however, reports of this pest are increasing in the central New York counties of Tioga, Cortland, and Onondaga. The damage is severe and having a negative impact on stands where it occurs.



Figure 5.—Removal of kudzu to reduce impact from this invasive plant.

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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