



Forest Health Watch

Reports of Forest Pest Activities in New England and New York (From State and Federal Forest Health Offices)

A variety of insect pests and tree diseases are causing damage in New York and the New England States. Exotic invasive species continue to create the most concern for forest health in both urban and rural areas.

Over the past few years, detection surveys have shown the presence of the Sirex wood wasp in New York and Vermont; hemlock woolly adelgid moving northward into Vermont, New Hampshire, and Maine; emerald ash borer knocking at the door of New York and Vermont; and the Asian longhorned beetle expanding in the New York City area onto Staten Island, along with the discovery of the beetle in Worcester, Massachusetts. The effects from these pests alone have been costly and it is expected that they will cause more significant damage in the next decade. In New York, the most recent finding of oak wilt, far outside its known range, is also of concern.

Connecticut

There are ongoing efforts to monitor for invasive pests, as anthracnose and several defoliators cause damage in some areas.

Preliminary results from aerial surveys indicate that there were moderate levels of defoliation from **gypsy moth** and **forest tent caterpillar** in areas that have been defoliated in the past. An **unknown defoliator** has occurred in the coastal area between Lyme and Groton. This damage has been seen in previous years and specialists are still unable to name the cause. Severe damage as a result of **hardwood anthracnose** occurred in the spring on oaks, sycamores, and maples, especially in the understory, but most trees have put on new leaves since spring.



Sycamore anthracnose
(www.forestryimages.org)

UGA1198007

There was some evidence of increased mortality of hemlock from the **hemlock woolly adelgid**, probably due to mild winters favoring survival of adelgids. **Invasive species survey** results are still negative for Asian longhorned beetle, emerald ash borer, Sirex wood wasp, light brown apple moth, and *Phytophthora ramorum*.

Maine

The hemlock woolly adelgid creeps northward in the southern part of the State, most likely due to natural spread.

Hemlock woolly adelgid was discovered in Ferry Beach State Park, Saco, Maine in late June. Surveys indicate a low-level, spotty presence of the adelgid in the Park where rangers have pruned infested hemlock material likely to be encountered by hikers, picnickers, and other visitors. This infestation is several towns removed to the north from the generally infested area, and intensified surveys of hemlock stands in Kennebunk, Kennebunkport, Arundel and Biddeford are underway.



Hemlock woolly adelgid
(www.forestryimages.org)

Browntail moth populations were centered around the lower portion of Merrymeeting Bay in Bath, Brunswick, Topsham, West Bath, and Bowdoinham. This insect has been active, but a significant increase was not observed this year. The infestation of the **fall cankerworm**, found early in the 2008 growing season in southern Maine, did not result in any significant defoliation. The population collapsed, possibly as a result of wet weather conditions.

Maples in several towns in urban and suburban areas are now showing symptoms of **Verticillium wilt**. Symptoms of this disease have been observed in particularly high levels in Lewiston and Bangor and other areas, including Augusta, Dresden, Presque Isle, Rome, and Topsham. Norway maples appear to be most susceptible, but red and sugar maples have also been affected. Acute symptoms at first include wilting, drying, and browning of leaves, usually of one or a few individual branches. Some severely infected trees have up to half or more of the total crown area damaged in a single year.

Observations during the spring and early summer, specifically in Aroostook County and central Maine, have indicated substantial **branch and stem breakage** to natural and plantation conifer regeneration. This damage was the result of the heavy snow loads during the 2007-2008 winter

season. Snowfall totals ranged from around 100 inches in central Maine, to over 200 inches and more in western and northern areas.

Massachusetts

A significant infestation of the Asian longhorned beetle was detected in Worcester, as defoliators continue to cause damage to the State's forests.

On August 4th an infestation of the **Asian longhorn beetle** was confirmed in the Greendale section of Worcester, after an alert called in by a resident homeowner. Preliminary surveys indicate that the infestation covers several towns. The regulated area includes portions of Worcester, Boylston, Shrewsbury, and Holden. Intensive surveys are underway in cooperation with local governments, State Forestry and Agriculture Departments, USDA APHIS, and the U.S. Forest Service. Movement of material outside of the regulated area is prohibited and a general education effort has begun to alert residents and arborists.



**Asian longhorned beetle
damage in Worcester, MA
(Photos by U.S. Forest Service)**

The **periodical cicada** has caused approximately 6,500 acres of scattered damage in the towns of Falmouth, Sandwich, Bourne, and Barnstable. During the annual aerial survey 15,000 acres of defoliation were documented, most of which was caused by the **winter moth**, an invasive pest. Severe **oak mortality** continues to occur in southeast Massachusetts from repeated defoliation of winter moth, forest tent caterpillar, and gypsy moth. Mortality of red pine is also occurring, attributed to **red pine scale**, another introduced insect. **Viburnum leaf beetle** has caused damage in some areas and **hemlock woolly adelgid** continues to infest native hemlock.

New Hampshire

It has been a great growing season and a healthy year for the forests of New Hampshire.

The most significant damage was caused by an EF2 **tornado** that struck between Deerfield and Freedom on July 24th. The tornado corridor was 49.5 miles long and averaged 1/4 miles in width. The area damaged was roughly 8400 acres. Over 50 million board feet of white pine was blown over or snapped off.

Saddled prominent has been the most active forest insect defoliator in New Hampshire this year. Many sites around the central region of the State have high numbers of caterpillars and as much as 30 acres of heavy defoliation was observed. Due to the continued presence of **hemlock woolly adelgid**, several towns in Rockingham County in the southern part of the State are under quarantine to regulate movement of hemlock plant material.



Saddled prominent
(Photo by VT Dept. of Forests,
Parks, and Recreation)

New York

The first report of oak wilt disease in the State was just confirmed in the Albany area and exotic invasives continue to cause the most concern for forest damage.

Oak wilt, a disease of unknown origin that has been affecting oak in rural and urban areas in the Midwestern and Southern States, has been reported near Albany in the town of Scotia. The Plant Diagnostic Lab at Cornell University has confirmed the presence of the fungus that causes the disease. This is the first time oak wilt has been detected in New York and is many miles away from the nearest known infection site in Pennsylvania. A concerned landowner contacted Cooperative Extension to report the tree mortality. Only a few infected red oak trees in the neighborhood have been identified and additional surveys are planned. Some of the trees have been cut and removed in recent years and the impact from this discovery is currently not known.



Oak wilt
(www.forestryimages.org)

The **Sirex wood wasp**, a non-native forest pest that affects pine, continues to be detected in various sites in the State. The surveys are currently being concentrated in the eastern portion of the State, as all of the earlier finds have been in western and central New York. The insect has also been detected in northern Vermont, in Pennsylvania, and in eastern Michigan. Federal quarantines will soon be in effect to regulate the movement of pine from infested areas.



Sirex woodwasp
(Photo by
New Zealand Forestry)

Emerald ash borer surveys intensify in New York as the insect has been found in western Pennsylvania, and in Canada in Ontario, in the southern part of the Province, and in Quebec, near Montreal. Other recent finds in the east have been in West Virginia, Virginia, and Maryland, along with reports in the Midwest from Wisconsin and Missouri. A campaign to alert campers not to move any firewood is in place across the region. Surveys are also being conducted throughout the New England states, including various campgrounds. Federal quarantines are in place in the infested areas to restrict movement of ash.

Populations of the **hemlock woolly adelgid** continue to infest native hemlock in the southeastern New York and the insect has moved slightly north over the past few years.

Rhode Island

Along with the ongoing hemlock woolly adelgid infestations, several pests have been evident based on observations and calls from homeowners.

In early spring, **forest tent caterpillar** defoliation was observed, especially in the western part of the State in West Greenwich and Coventry. Surprisingly there was not a significant amount of gypsy moth damage. **Sycamore anthracnose** was observed in northern Rhode Island in Lincoln and Cumberland. Several calls were received regarding mortality from the **hemlock woolly adelgid**, which is found throughout Rhode Island, and the **pine bark adelgid** in the southern part of the State.



Forest tent caterpillar
(Photo by VT Dept. of Forests,
Parks, and Recreation)

Vermont

Primary damage has been reported from forest diseases, insect defoliators, and borers.

Surveys continue for several exotic invasive species. **Emerald ash borer** has not been detected in Vermont, however it was reported in the town of Carignan in Quebec, which is east of Montreal, approximately 30 miles from the northern Vermont border. **Hemlock woolly adelgid** has been found in the towns of Vernon, Brattleboro, and now Townshend, in southern Vermont. Information is being distributed to clarify how this find affects the shipment of wood products. In 2007, the **Sirex wood wasp** was discovered in Lamoille County in northern Vermont, however, no additional areas have been found infested.

The most prominent forest diseases have been needle blights and rusts. **Brown spot needle blight** was widespread on last year's foliage of white and Scotch pine in both forest and ornamental settings. **Rhizosphaera needle cast** was commonly observed on ornamental blue spruce and is widespread. The disease shows up on second year needles; infected foliage turns brownish-purple and will eventually fall off. **Pine-pine gall rust**, which causes the formation of spherical woody galls on branches and stems, was obvious on Scotch pine near Barton on Route 91. **Phomopsis and Kabatina blight** have been observed on juniper in Stowe and other sites where susceptible junipers grow.

Defoliators cause damage annually in the State, however the most recent **forest tent caterpillar** infestation has collapsed. This year damage on red oak by an **oak leaftier/leaf roller complex** was heavy in scattered locations including Rutland, Chittenden, Addison, and Washington Counties. In 1980, a leaftier complex caused moderate defoliation in the Waterbury-Middlesex area and was attributed to the combined work of a number of insects. Similar damage was apparently noted in the late 1980s in New Hampshire and Massachusetts, which resulted in oak mortality.

Elm leaf beetle was abundant for the first time in many years, causing light to heavy defoliation of elms in many locations and **fall webworm** has shown up on roadside trees. **Gypsy moth** populations stabilized, with only occasional larvae and very light defoliation reported. **Mountain ash sawfly** was reported from several sites, **European sawfly** has been observed on red pine, and **European snout beetle** was widespread on various hosts. **Viburnum leaf beetle** continues to destroy viburnums and **Rose chafer** populations were heavy in various locations.



Elm leaf beetle damage
(Photo by VT Dept. of Forests,
Parks, and Recreation)

Other tree damage was also evident. **Round-headed apple tree borer** remains problematic, particularly with young trees and **twig pruners** have been observed on black locust and oak. Oak twig pruner appeared to be heavier than usual this year.

Shoot mortality of red pine scattered throughout the crown, associated with **pine gall weevil**, was common in much of the State. Roadside and edge trees tend to be the most heavily affected and other agents such as **Diplodia shoot blight** and **brown spot needle blight** were often present on declining trees.

Balsam fir mortality was common this year in scattered locations. Some of this was associated with infestations of **balsam woolly adelgid**. **Chlorotic sugar maple** began showing up during aerial surveys. Excessive soil moisture from record rainfall amounts was suspected as the cause.

Several invasive plant species are of growing concern. The range of **wild chervil** is expanding and very prevalent in the Randolph area; **wild parsnip** has become a common roadside plant and is very obvious when in bloom; in addition, **goutweed** and **wild madder** were also evident.

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