



Vermont Forest Health

Insect and Disease Observations—September 2012

Department of Forests, Parks, & Recreation
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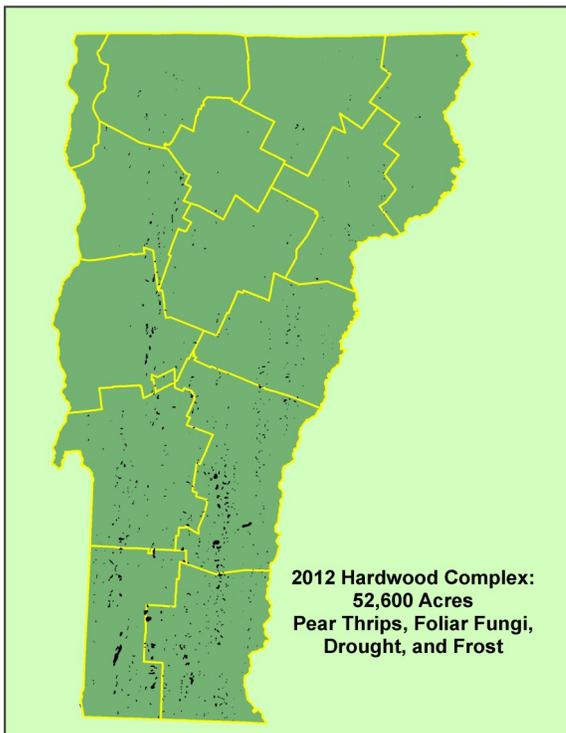
Weather and Fall Foliage

Fall color has been brightening foliage everywhere and Vermont looks beautiful! Tess Greaves, FPR’s fire weather specialist, reports that fall phenology, based on her years of observations, is “right on” for the area around Walden. Foliage reports from the region have been stellar. We have had some spotty frost in parts of the state, but not the “all out” killing frost yet. You might enjoy this short [video of FPR commissioner, Michael Snyder, describing fall foliage](#). Stay abreast of current conditions by viewing the [Vermont foliage report](#).



*It’s not just tourists who revel in views like this one of a red maple in fog.
(Photo: R. Kelley)*

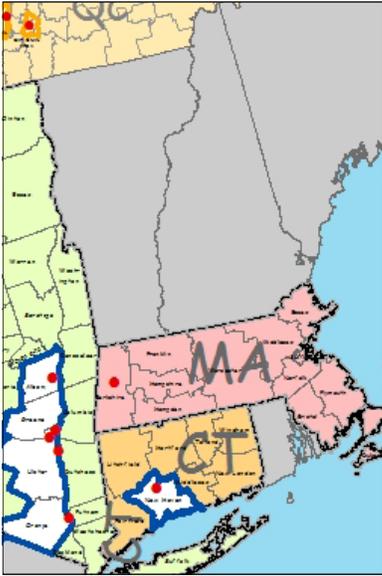
Drought maps indicate that Vermont, as a whole, was normal for the month of September. However, some towns in the state are experiencing [drought effects](#) that are reflected in the water supply.



As per usual, some trees aren’t participating in foliage season because of leaf damage by forest pests or abiotic factors. Data from this year’s August aerial survey have been analyzed. The forest health issue that involved the greatest acreage was **Hardwood Browning**, mapped on 52,600 acres. These foliar symptoms were caused by combinations of pear thrips (maples), anthracnose and fungal leaf spots (mostly maple, ash, and birch), dry weather and spring frost. Dieback from **Beech Bark Disease** was mapped on 20,269 acres.

In all, we mapped damage symptoms on less than 2% of Vermont’s forestland. Additional information will be available in our 2012 Vermont Forest Insect and Disease Conditions Report.

Exotic Insects



The newest EAB detection is about 20 miles from the VT border. (Above, from USDA APHIS)

The recent discovery in Dalton made Massachusetts the 18th state known to have emerald ash borer. (Below, from emeraldashborer.info)



On September 6th, federal officials confirmed an **Emerald Ash Borer** [detection in western Massachusetts](#) in the town of Dalton. The borer was found on a purple prism trap. The State of Massachusetts and the USDA are defining a quarantine area that would only allow the movement of certain wood products under specified conditions. Anyone using firewood, ash sawlogs, or other ash products from Massachusetts should be aware of these conditions. You can start by contacting [USDA APHIS](#), the [VT Agency of Agriculture, Food, & Markets](#), or an FPR office below.

Emerald ash borer has also been detected in several [new locations in Quebec](#) during 2012, but none are closer than previously detected infestations.

Most of the **Purple Prism Traps** deployed in Vermont to detect emerald ash borer in have been analyzed. No emerald ash borer beetles have been found. A total of 1,295 traps were in place in our state this year. Eighty-five of the traps were set by USDA-APHIS-PPQ staff, while 1020 were deployed by a contractor, and 90 by VT Agency of Agriculture.

Cerceris Wasp Surveys have proven to be helpful in locating Emerald Ash Borer infestations early, as exemplified in the recent discovery of [EAB in Connecticut](#). In Vermont, volunteers have helped monitor wasp colonies, collecting beetles in the family Buprestidae (the family to which the emerald ash borer belongs). In initial screenings of these collections, no emerald ash borers were observed. A complete report of species of buprestids will be available at a later date. We are very grateful to the many people who contributed time to assist with this survey.

You can access more information about these and other issues by visiting the [VT Invasives website](#).

Diseases

Although summer was dry, when some leaves were emerging, the humidity was adequate for infection by foliage diseases. Drought made diseases more noticeable in mid-summer as it accelerated the browning of infected leaves.

Nearly 50% of the foliage on some Norway maples in the Champlain valley is brown, perhaps due to a combination of anthracnose and drought. This is particularly noticeable on street trees in Burlington and in the Champlain Islands. In addition, the usual appearance of [Tar Spot](#) has drawn the attention of some.



Tar spot is obvious on many ornamental Norway maples. (Photo: R. Kelley)

Leaf Spot defoliation, caused by Septoria and other fungi, was common on white birch and balsam poplar. Unlike most years, the birch leaf fungus was more common at low elevations than in montane forests.

Yellow Branches on Hemlock, particularly in the lower crown, have been reported from scattered locations. Although we're not completely sure of the cause, this symptom has been observed on hemlock in other unusually dry years. One hypothesis is that very weakly pathogenic fungi may be infecting drought-stressed bark.



Flagging of hemlock branches in the lower crown may be related to dry conditions. (Photo: B. Guenther)

Insects

We continue to see lots of **Hickory Tussock Moth** and **Rusty Tussock Moth** caterpillars, though the effects of the feeding of these larvae have not been notable. With the caterpillars so abundant, we've had questions about the appearance of the adult moths (pictured at right).

Another fuzzy caterpillar, the so-called **Woolly Bear**, is frequently encountered at this time of year. Though those most familiar to us are orange and black, there are other color forms of this species that may be completely blond, brown, rusty-colored or tan. The woolly bear spends the winter as a late instar caterpillar and feeds again in the spring before it pupates.



Adult hickory tussock moths emerge in May and June. (Photo: whatsthatbug.com)

Viburnum Leaf Beetle egg niches can be observed on viburnums that were defoliated in spring to early summer by the larvae and later, in mid-summer, by the adult beetles. After feeding, adults mate and females begin to prepare sites for egg-laying. Small holes are chewed in twigs, eggs deposited in the holes and then the niches are capped with chewed bark and excrement.



Viburnum leaf beetle larvae (left) feed on foliage until early summer, then crawl down and pupate in the soil. Twigs that contain eggs of the viburnum leaf beetle (right) can be clipped and removed to help limit populations of this insect. (Photos: R. Kelley)



Some of the “nuisance fall invaders” are making their presence known:

Boxelder Bugs have been especially prevalent in areas where they have aggregated on sunny surfaces as they look for a place to hibernate.

The **Western Conifer Seed Bug** usually goes unnoticed until adults seem to show up suddenly in and around homes, looking for overwintering sites. Despite the numbers seen in the fall, we have not documented damage to conifers as a result of feeding.

Various life stages of the boxelder bug may congregate on a tree trunk or the side of homes and other structures. (Photo: W. Cranshaw, Bugwood.org)

Can you find the western conifer seed bug? (Photo: R. Kelley)



Other interesting observations this month included the appearance of this **Pandora Sphinx Moth** at Wake Robin in Shelburne. This is one of our largest and most showy sphinx moths and the larva is also spectacular, with white “portholes” along its sides. We also received this photo of the caterpillar stage of the **Fawn Sphinx**, observed on the old Norwich University ski hill in Northfield.

Left: Pandora sphinx moth found by Mary Harrigan in Shelburne. (Photo: F. Hiltz)



Below: Pandora sphinx caterpillars rival the adult moth in vivid colors and catchy appearance. (Photo: J. Hedbor)



Sam Hawkey, who discovered the fawn sphinx caterpillar, above, said “It looked like a green hotdog resting on the sapling.” (Photo: S. Hawkey)



For more information, contact the Forest Biology Laboratory at 802-879-5687 or:

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