Vermont Forest Health

Insect and Disease Observations—August 2014

Department of Forests, Parks & Recreation
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Weather

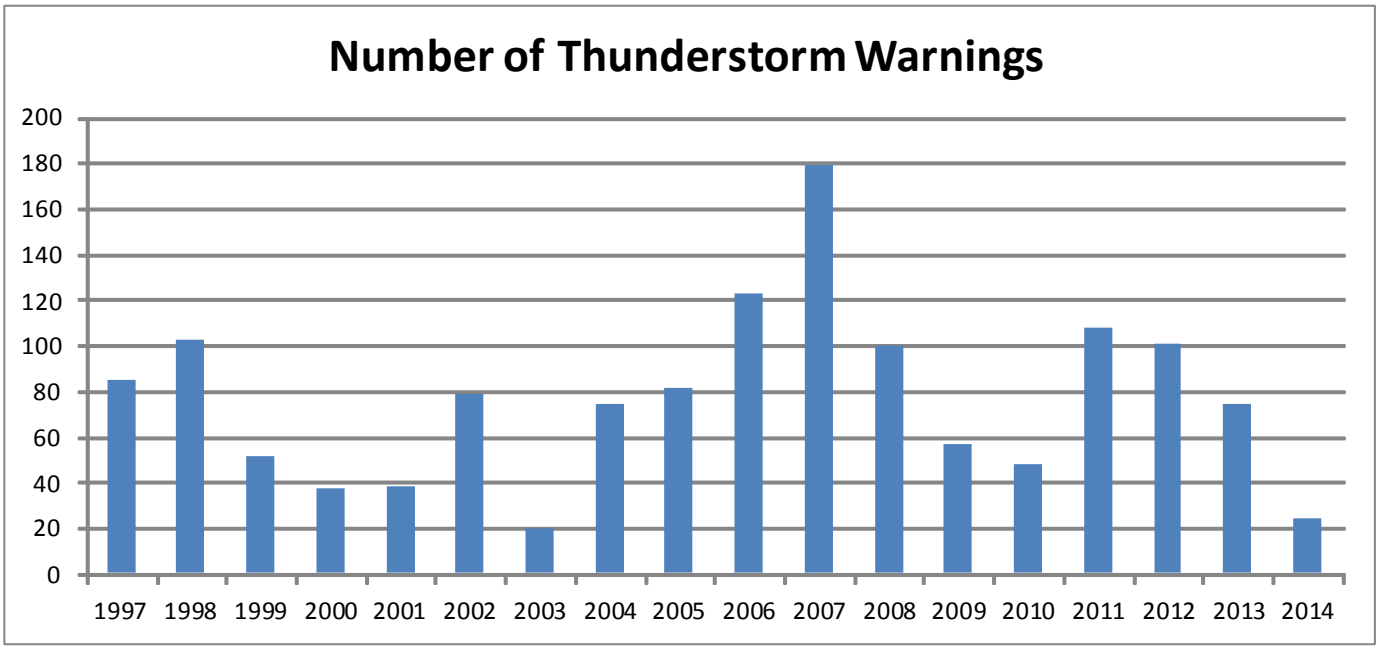
For some Vermonters, the summer of 2014 has been splendid. On August 24, the National Weather Service in Burlington posted these comments: "The opinion of many this summer is that it's been one of truly ideal northern New England fare, with no really long-term heat, pleasant nights, plenty of sunny, dry days but enough rain to keep things growing and green."

Others have experienced short-lived storms that developed quickly, got briefly intense, then disappeared, only to be replaced by new storms. On August 5, localized storms with hail were reported in Fair Haven and West Haven, trees came down in Fair Haven, Middletown Springs and Poultney, and there was heavy rain in Bennington on that date. Further north, Huntington had an inch of rain in ½ hour and an additional 1.31 inches during the rest of the night.

From August 8-13, a stretch of mild, dry, perfect summer weather came to an end with moderate to heavy rains across the state. Windham and Windsor Counties were hardest hit with reports from 1 to nearly 3" of rain. Cooler, below-normal temperatures followed on August 14-17. From August 19-26, conditions in northern Vermont remained dry, while the southern four counties, along with Orange County, were wetter.

Statewide, August precipitation was below normal by 3" for all except Windham and most of Orleans Counties. Temperatures were below normal from 1 to 4 degrees.

The summer of 2014 is tracking to have the 2nd lowest number of severe thunderstorm warnings issued by the NWS in Burlington since 1997, second only to the summer of 2003. (Data from the NWS BTV Facebook page.)



Diseases

Maybe the most striking thing is what *isn't* happening, namely **very few hardwood foliage problems**. We have not observed high levels of anthracnose on maple, ash, and oak, nor have we seen Septoria on birch as we have in recent years.

Conifers, on the other hand, continue to exhibit signs of distress. Statewide annual aerial surveys are well under way, and **balsam fir problems** are notable from the air as well as the ground in central Vermont and the Northeast Kingdom. **Larch decline**, including premature yellowing of needles, was observed in the Northeast Kingdom, but less so elsewhere. Issues with the health of **red pine** are very noticeable from the air in a few stands. **White pine needle damage** remains evident. Other years, the brown needles haven't been so obvious this late in the season. (See June and July 2014 Forest Health Updates for a review of conifer health concerns.)

One hardwood that continues to show dieback and decline from the air throughout the state is beech affected by **Beech Bark Disease**.

The FPR aerial survey team has mapped areas of white pine needle damage (left) and symptoms of beech bark disease, including yellow crowns and dieback (right). Photos: B. Schultz and W. M. Ciesla, Bugwood.org

Another reminder of the **importance of avoiding wounds** to sugar maple was a site visit to a stand in Washington County with a patch severely declining trees. They had been defoliated by forest tent caterpillar at least once, eight years ago, which initiated some decline. The shallow site may have contributed directly, and also indirectly by forcing root growth close to the surface, vulnerable to wounding when some of the declining trees were cut for firewood. This seems to have started a repeating cycle of decline, cutting, and root wounding. The hidden ingredient was the **sapstreak fungus**. It's very common in our soils, but can only get into a maple through basal stem or root wounds. A close relative of Dutch elm disease, it kills trees the same way, by blocking water transport in the wood. Unlike Dutch elm disease with its elm bark beetles, it lacks an easy way to get into healthy trees, unless given easy access through wounded roots. The stump of a freshly cut maple declining from sapstreak has a characteristic green stained cross-section with fingers" projecting towards the outside, and maybe some reddish flecking. You may also pick up the staining by cutting into the roots of a tree when it's still alive.

You may find the characteristic green staining of sapstreak when you cut into the roots of a declining maple. Photo: B. Schultz

Defoliating Insects

The **red-humped caterpillar** (*Schizura cocinna*) was found feeding on red osier dogwood in Passumpsic and Orwell, and blueberries in Springfield. Other hosts include apple, birch, blackberries, cherry, elm, hawthorn, locust, maple, oak, poplar, walnut, willow and others. The caterpillar has a bright red head and red hump over the first abdominal segment.

The **yellow-necked caterpillar** (*Datana ministra*) was observed on apple in Montgomery. This species, as well as other members of the genus, have been declining in numbers, perhaps as a result of heavy parasitization by *Compsilura*, a parasitoid introduced from Europe to control the gypsy moth.

Both the red-humped (left) and yellow-necked (right) caterpillars raise the head and/or tail and thrash from side to side in defensive postures to deter potential predators. Photos: Clemson University (left); and Canadian National Collection (right), both on Bugwood.org.

Caterpillars of the **cherry scallop-shell moth** (*Rheumaptera prunivorata*) were in evidence in Chelsea and Cabot this month. Larvae feed in groups in shelters made by tying the leaves together.

The **milkweed tussock caterpillar** (*Euchaetes egle*) has been observed in several locations. The caterpillars feed gregariously and folks sometimes stumble across them when they are looking for monarch caterpillars. Caterpillar expert David Wagner (UConn) says that monarchs and milkweed tussocks appear to prefer different sorts of milkweed, the monarchs feeding on young, vigorously growing shoots while the milkweed tussocks are "content to eat older foliage, sometimes which has already started to turn yellow."

Cherry scallop-shell caterpillars are protected from predators by their leaf shelters, while the bright colors of the tussock moth caterpillar warn would-be predators that they might be dangerous to eat. Photos: R. Kelley (left) K.D. Arvin, Bugwood.org (right)

Sapsucking Insects

Specimens of what appears to be the **spotted poplar aphid** (*Aphis maculatae)* were observed on aspen sprouts at a clear-cut area in Duxbury. This species may be abundant on succulent growth of aspen suckers. Like many aphids, the spotted poplar aphid is sometimes attended by ants who ward of the aphid's enemies in exchange for the honeydew excreted by the aphids.

Look for dense colonies of spotted aphids on shoot tips of aspen sprouts in late July to leaf fall (left); Close-up of the spotted alder aphid. Photos: T. Alexander (left); T. Murray, BugGuide.com

The **Sumac Gall Aphid** (*Melaphis rhois*) initiates eye-catching galls on the midrib of sumac. If you open one of the pouch-like galls, you'll find hundreds of aphids inside.

Sumac galls can contain hundreds of aphids along with stores of wax-coated honeydew. Photos: N.S. Gardener, BugGuide.net (left); R. Kelley (right).

FORESTS, PARKS & RECREATION VERMONT
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