

# Vermont Forest Health

## Insect and Disease Observations—May 2015

Department of Forests, Parks & Recreation  
May 2015 [vtforest.com](http://vtforest.com)

### Weather Whiplash

May featured what Matt Sutkoski aptly referred to in his Weather Rapport blog as [weather whiplash](#). There were warm, hot, and cold days; there were very wet and very dry days, and there were noisy, flashy, and windy days, when thunderstorms raged and torrential rains poured.

High fire danger in early May sparked multiple wildfires. A statewide burn ban was implemented on May 5 for the first time since 2005. The ban was rescinded on May 12 due to a mid-month rain, except for Bennington and Windham Counties where the ban expired on May 19.

The month ended up as one of the 3 warmest at most of our climate sites, including Burlington, with the #1 warmest May on record. On May 8, Montpelier hit a record high for the date at 83°, and on May 17, Springfield reached 82°, breaking the old record of 76° set in 2010.

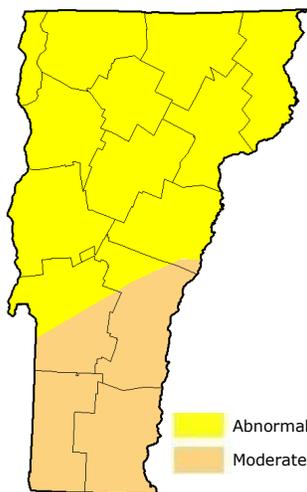
On May 22, it turned cold. A widespread frost caused light damage to ash, maple, and beech at higher elevations, and to some understory trees elsewhere. Japanese knotweed browning due to frost was also reported.

The month's rollercoaster ride culminated in a hot, humid day on May 30th, with temperatures in the 80s, followed by a strong cold front. Montpelier logged a record 2.11" of rain (the old record for the date was 1.3" in 1984). The next day featured thunderstorms, heavy rain, lightning and damaging winds. Temperatures remained in the chilly upper 40s.



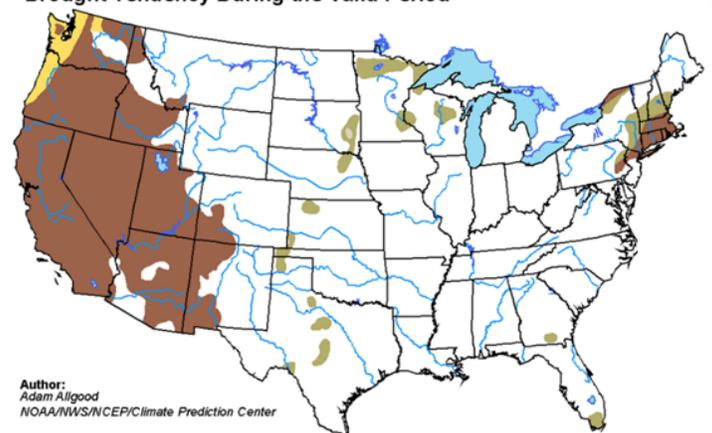
*Frost damage to sugar maple, beech, ash was noted in several locations after temperatures in much of the state dove to the mid-20s on May 22.*

*Photo: T. Greaves*



The [Drought Index](#), released on May 26 showed the northern half of Vermont as abnormally dry and the southern half in a state of moderate drought. The [U.S. Monthly Drought Outlook map](#) released on May 31 reflects the recovery from drought conditions.

### U.S. Monthly Drought Outlook Drought Tendency During the Valid Period



Author:  
Adam Aligood  
NOAA/NWS/NCEP/Climate Prediction Center

*Left: May 26 US Drought Monitor Author: USDA  
Above: May 31 US Drought Outlook. Author:  
NOAA/NWS/ NCEP/ Climate Prediction Center*

- Drought persists/intensifies
- Drought remains but improves
- Drought removal likely
- Drought development likely

## May Showers and Spring Flowers: Invasive Plants Blooming Now

Our new Invasive Plant Coordinator, Elizabeth Spinney, reports that many invasive plants in Vermont bloom in May and into June. Keep an eye out for [Dame's Rocket](#) (*Hesperis matronalis*), sometimes referred to as "early phlox". This species is easy to distinguish from our native woodland phlox (*Phlox divaricata*) and garden phlox (*Phlox paniculata*) if you remember that true phlox has five petals and five letters spell its name while Dame has four petals, and four letters spell its name.

Another obvious bloomer this time of year is [Wild Chervil](#) (*Anthriscus sylvestris*). This invasive plant can be seen alongside roads, but notably in our rolling Vermont fields. Often confused for Queen Ann's Lace (*Daucus carota*), Wild Chervil can be distinguished by a lack of "bracts" (small feathery leaves, which, in this case, are found under the *D. carota* flower umbel). Wild chervil is on the watch list for invasive species in Vermont.

Dame's Rocket and Wild Chervil originate from Europe and Asia. They spread by seed, and outcompete native plants for growing space and other resources. Both are also common part of "Wildflower Mixes", so check the species list before buying. For more information, check out [VTInvasives.org](#). And, as Elizabeth reminds us, "Spread the word, not the plant!"



*Invasive Dame's Rocket (left) and Wild Chervil (center), not to be confused with Queen Ann's Lace (right), are in now bloom. Photos: [SB Johnny](#), [Daljal](#), and [J. Cart](#).*

## Heavy Flowering and Loads of Seeds



Silver and red maples, along with several other tree species, are carrying heavy seed crops this spring. Periodic and/or alternating years of heavy flower production can be triggered by a complex interplay of conditions. Trees tend to space out heavy seed years occasionally providing a surplus that can't be completely consumed by the animals that eat them. More than normal numbers of flower buds can also be the result of stress in the previous growing seasons.

When lots of energy goes into flowering and seed production, leaf growth is often reduced and trees look sparser than normal.

Foliage will likely start to fill in soon. As the season progresses, you can expect that leaves will continue to develop, especially if moisture and temperatures promote growth. Unless other factors come into play (such as drought, mechanical damage, onslaught of pests or pathogens), the heavy seed production should not be a worrisome issue for long-term tree health. Lots of maple seedlings may spring up under some of the trees with heavy seed.

*Acer x freemanii, a hybrid of red maple and silver maple, showing heavy seed.*

## Double Tree



The odd-looking tree in this photo was observed in Williston. Though the rightmost tree appears to be two trees growing side by side, the photographer did some investigative work and found that the two types of foliage were actually growing on a single stem. This was a spruce cultivar that had reverted to a wild type. Dwarf ornamentals like these are often mutants of much larger trees. Occasionally, especially in older trees, new growth on branches will change in appearance, and the needles will appear much longer and grow much faster. These sections are called "revertants" meaning that on the DNA level, cells lost the dwarf mutation and reverted to the "original" or "wild type" form of the plant.

To read more about this phenomenon, see [\*Why is There a Tree Growing Out of This Tree?\*](#) by Michael Snyder.

Photo: J. Ouellette

## In Tents or Not?

Both [eastern tent caterpillar](#), whose silken tents appeared this spring in cherries and apples, and [forest tent caterpillar](#), who don't make tents but rather rest on a silken mat on the trunk of the infested tree, have been observed in a number of locations throughout the state. These two species may associate with one another, and caterpillars of both species may be observed side by side. Heavy and/or repeated damage is generally uncommon with eastern tent, and concerned homeowners have the option of removing the nests from host trees. The periodic outbreaks of forest tent caterpillar tend to be more worrisome since loss of woody growth and death of branches may result from heavy or repeated defoliation. The results of pheromone trapping, evaluations in plots that are part of our North America Maple Project, and aerial and ground surveys help us keep tabs on forest tent caterpillar population changes.



Mass of forest tent caterpillars (left); eastern tent caterpillar makes a silken web (center); forest tent caterpillar has keyhole-shaped white spots while eastern tent has a white stripe down the back (right).

Photos: T. Greaves (left) and R. Kelley (center and right).

## Cedar Apple Rust

The pathogen that causes [cedar apple rust](#) occurs where cedar and apple co-exist. Spring rains have prompted the growth of the showy, gelatinous spore masses (telia) from galls on cedar. They are very obvious and numerous on many roadside trees. The spores produced can infect apple foliage and fruit.



*Cedar-apple rust gelatinous tendrils.* Photo: R. Kelley.

# Elm Sawfly

Elm Sawfly adults have been observed in both northern and southern Vermont this spring. These insects are sometimes mistaken for bees or true flies. They are large and robust, 20-25 millimeters long. The femora (think thighs) on the middle and hind legs of the male are thickened, and the mandibles of both sexes are formidable. Elm sawfly larvae feed on a variety of leaves, including elm, willow, basswood, birch, poplar, alder, and maple. Small mammals such as shrews and mice feed on the larvae and pupae.

*The Elm Sawfly is our largest North American sawfly. While larvae feed on leaves, the adults girdle bark on twigs.*

*Photo: B. Boccio*

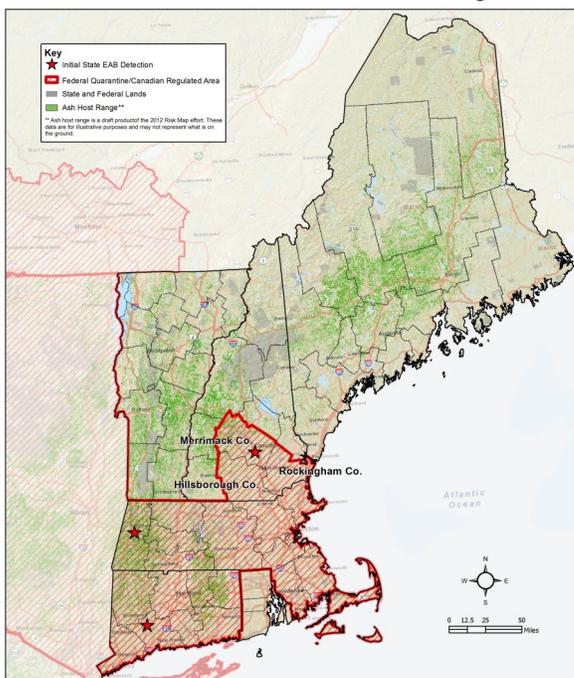


## Emerald Ash Borer Quarantine Areas Near Vermont

The map below, provided by the US Forest Service, reflects EAB quarantine areas near Vermont. The only recent change is that the entire state of New York is now part of the federal quarantine. This means that hardwood firewood, live ash trees, and other ash material (including logs, chips, and green lumber) can't be imported into Vermont from any part of New York unless it is properly treated and/or certified by the USDA.

At the same time, New York implemented its own regulations for movement of ash products within New York State. References to these changes can be found at: <http://www.emeraldashborer.info/map.cfm>

Emerald Ash Borer Detection in New England



For more information on obtaining necessary certification, contact the state office of [USDA APHIS Plant Protection and Quarantine](http://www.usda.gov/aphis).

*In addition to purple traps, green funnel traps are being used, to survey for emerald ash borer.*

*Photo: L. Lund*



An intensive survey for emerald ash borer is underway this year in southwestern Bennington County. This work is located in areas where ash decline has been observed for several years. Survey sites will be monitored, with the assistance of volunteers, using green and purple traps, girdled trap trees, and visual surveys. The new green funnel traps will also be replacing purple traps at some of the 650 locations being monitored statewide as part of the ongoing USDA APHIS detection survey effort.

## Buckthorn as an Alternate Host

Yellow leaf spots and malformations on glossy buckthorn, associated with [crown gall rust](#), have recently been observed in South Burlington and Addison. Susceptible buckthorns are infected in early spring when wind-carried spores infect young leaves. Bright yellow-to-orange spots, which contain the spore-bearing “pycnia”, appear on the upper leaf surface. Eventually raised “cluster cups” form, and the aeciospores produced inside them are carried by air currents to infect oats. Though buckthorn is affected by the disease, the pathogen is much more lethal to oats than buckthorn, providing yet another good reason for eradicating buckthorn shrubs. Previous infections of buckthorn by the crown gall rust pathogen were observed in 2013 in Westminster and perhaps in North Hero in 2012.



*Buckthorn is an alternate host for crown rust, a pathogen that infects oats. Photo: P. Murakami*

## Just Curious?

The longhorned beetle shown below is [Evodinus monticola](#). Larvae mine beneath bark of larch, fir, spruce and pine. The day-flying adults are active now, feeding on flowers of viburnum, dogwood, elderberry and, in this case, hobblebush.

The [spiny oak sawfly](#), shown on the right, is covered with rows of forked spines. Early larval stages, or “instars”, chew small holes in newly-expanding leaves. Later instars consume tissue between the veins, leaving behind just the main veins, giving the leaves a tattered appearance.



*This longhorned beetle, Evodinus monticola, (left) was observed on hobblebush at Willoughby State Forest in Westmore. Photo: K. Decker. Several larvae of the spiny oak sawfly, Periclista sp., (right) were observed on oak in Ferrisburgh. Photo: E. Spinney.*



**For more information,  
contact the Forest  
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