

Vermont Forest Health

Insect and Disease Observations—September 2014

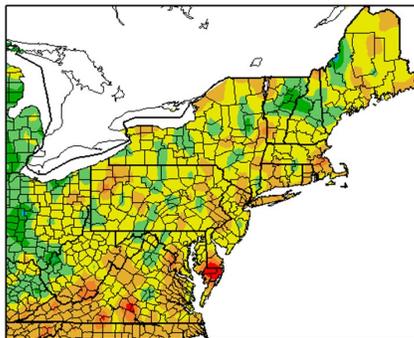
Department of Forests, Parks & Recreation
September 2014 vtforest.com

Weather

September featured many sunny days and very little rain. Seven times during the month, temperatures in Burlington got into the 80s, and a record high of 83 was set on September 28. While the month started and ended on a warm note, overall it averaged about normal, with northern Vermont just below and southern Vermont and the Champlain Valley just above normal (left map).

Precipitation was about 3" below normal statewide for the month (right map) and about 4" below normal (a little more in northern Champlain Valley) for the last 60 days. You can learn more by viewing the [U.S. Drought Monitor](#).

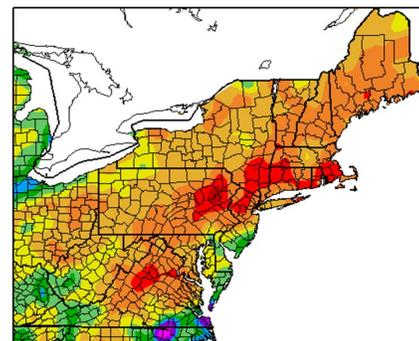
Departure from Normal Temperature (F)
8/31/2014 – 9/29/2014



Generated 9/30/2014 at HPRCC using provisional data.

Regional Climate Centers

Departure from Normal Precipitation (in)
8/31/2014 – 9/29/2014



Generated 9/30/2014 at HPRCC using provisional data.

Regional Climate Centers

Between the month's warm "bookends," there was widespread frost on September 19th. Burlington's temperature dipped to 32°, tying the 1959 record. According to [Matt Sutkoski's Weather Rapport blogspot](#), "It was the first time in 14 years there was a freeze in September, and it was the earliest fall frost in at least two decades." St. Johnsbury also tied their low record on that date with 29°. The photo below comes from Ron Kelley, who says this is definitely the most extended and spectacular fall foliage season he has ever seen.



Diseases

Rapid browning and drop of ash leaves has been observed in some areas. Though anthracnose is a possibility, most leaves appear uniformly tan, so they are more likely just drying out and dropping. We haven't had much rain and ash is very water sensitive. Widespread defoliation of black willow in riparian areas, caused by undetermined species of fungi, has also been observed.

A showy shelf fungus known as the "[northern tooth](#)" fungus has been apparent at some sites. Presence of the fungus indicates that there is wood decay inside the tree. Though there is no cure for this, a tree that is otherwise healthy continues to grow new, sound wood, and may survive for quite a while. As shown in the center photo below, rather than gills or pores, the fruiting body produces basidiospores on downward hanging "teeth."

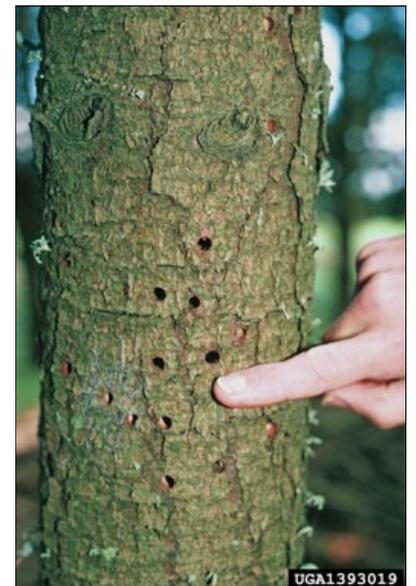
Fruiting bodies of the "[Resinous Polypore](#)" fungus have been observed in some locations. This widely distributed fungus can be found on the dead wood of hardwoods. It may occur on recently fallen wood and on wood that has been down for many years, but not typically on well-rotted wood.



(Left and center) Northern tooth fungus on sugar maple; close-up of spore-bearing teeth. (Right) Young resinous polypore fungi become leathery as they mature. Photos: L. Haugen, [Bugwood.org](#); T. Volk, S. Whittle.

Exotic Insects

[Sirex Woodwasp](#) has been trapped in several Vermont counties over the past few years, but had never been seen in trees. An infested red and Scots pine plantation in Jericho was brought to our attention by Dr. Matt Ayres from Dartmouth, who is studying the insect. This insect is quite destructive in southern hemisphere locations where it has been introduced, but has been less damaging in the northeastern US, where it mostly attacks suppressed trees. North Carolina has a quarantine on pine from infested areas.



Round exit holes of the *Sirex* woodwasp vary from 1/8 to 3/8" in diameter. Photo: D. Haugen, [Bugwood.org](#)

Elongate Hemlock Scale has moved into southeastern Windham County. Two in-town Brattleboro sites were brought to our attention by a local arborist who is also a volunteer Forest Pest First Detector. We visited another site in Guilford with a consulting forester who had reported hemlock woolly adelgid-related decline. It turned out that elongate hemlock scale was also present at that location. Elongate hemlock scale has a reputation of teaming up with hemlock woolly adelgid to cause more severe damage to hemlocks. It also does very well on fir. It is not a regulated pest anywhere in the region. For more information, visit Vermont Invasives and Maine Forest Service links.



(Left) Other states report that elongate hemlock scale is often detected for the first time during the last week of August. The insect may be more noticeable at that time. (Right) In heavily-infested trees, yellow spots may be apparent on the upper surfaces of the needles. Photos: www.vtinvasives.org.

Other Insects

Maple leaf cutter, maple webworm and maple trumpet skeletonizer have been obvious in some parts of the state, but damage is mostly light. A noted exception came from a sugarmaker in Franklin who reported near total defoliation by maple leafcutter of a treed island in his agricultural field.



(Left) The maple leafcutter spends the winter in the pupal stage on the ground. (Center) Leaves that contain maple trumpet skeletonizer larvae are "pleated" and contain "trumpets" made of frass and silk. (Right) Maple webworm-infested leaves are webbed together in a tattered, frass-filled clump. Photos: R. Kelley

Areas in the Northeast Kingdom continue to experience larch decline, often initiated by heavy [larch casebearer](#) and [eastern larch beetle](#) populations. The larch casebearer was originally introduced from Europe in the mid 1880s. They are aptly named. Larvae line mined-out needles with silk, cut them free, and carry them around as protective cases. As winter approaches, larvae move to outer branches and attach their cases to a twig where they will stay until spring before resuming feeding. In severe attacks, foliage may be consumed as fast as it is produced.

Repeated, severe defoliation can kill trees, but is also considered the most common factor predisposing larch to attack by the eastern larch beetle. When these beetles bore into the trees to feed and lay eggs, they excavate numerous galleries. The galleries disrupt sap flow and the tree becomes desiccated and discolored; death can follow.



Defoliation by the larch casebearer (left) predisposes trees to attack by the eastern larch bark beetle (right). Photos: Natural Resources Canada

Sapsucking Insects

[Balsam Woolly Adelgid](#), an insect that stunts and kills fir trees, continues to be of concern, with 12 balsam fir trees in Chester recently drawn to our attention.

We've received additional reports of [beech blight aphid](#) from multiple locations. As shown in the link below, these aphids sway from side to side when disturbed and, for that reason, have received the common name "[Boogie-Woogie Aphid](#)".

Balsam woolly adelgid feeding on twigs may result in gouting, a characteristic swollen deformation. Photo: D. Dailey O'Brien, Cornell University, [Bugwood.org](#)



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

Windsor & Windham Counties.....
 Bennington & Rutland Counties.....
 Addison, Chittenden, Franklin & Grand Isle Counties.....
 Lamoille, Orange & Washington Counties.....
 Caledonia, Orleans & Essex Counties.....

Springfield (802) 885-8845
 Rutland (802) 786-0060
 Essex Junction (802) 879-6565
 Barre (802) 476-0170
 St. Johnsbury (802) 751-0110

Forest health programs in the Vermont Department of Forests, Parks, and Recreation are supported, in part, by the US Forest Service, State and Private Forestry, and conducted in partnership with the Vermont Agency of Agriculture, Food, and Markets, USDA-APHIS, the University of Vermont, cooperating landowners, resource managers, and citizen volunteers. In accordance with Federal law and U.S. Department of Agriculture policy, this institution is prohibited from discrimination on the basis of race, color, national origin, sex, age, or disability.