

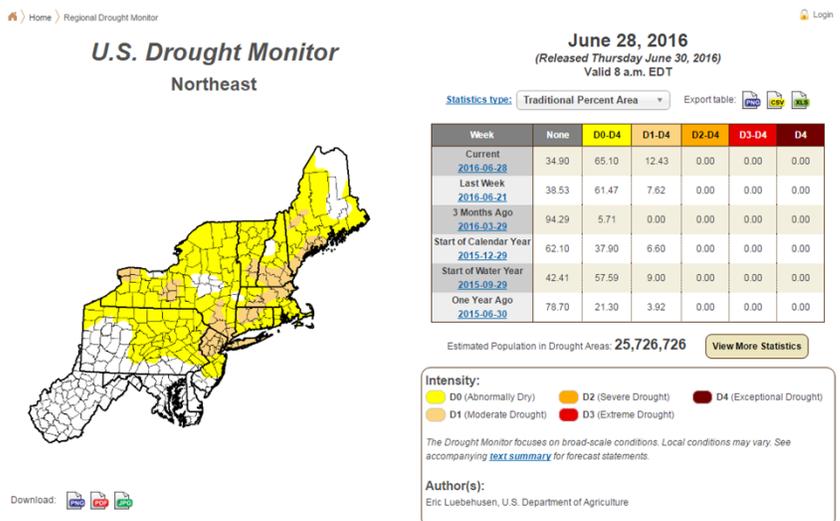
Vermont Forest Health

Insect and Disease Observations—June 2016

Department of Forests, Parks & Recreation
June 2016 vtforest.com

June Weather: A Few Highlights

- Record daily maximum rainfall of 1.45 inches was set in Burlington for June 5th. This breaks the old record of 1.17 inches set in 2002. A daily maximum was set in Montpelier that same day, with 1.36 inches. This breaks the old record of 1.08 set in 2006.
- Hail covered the ground in Hartland and other areas on June 7. (Hail was part of the storm picture on June 29th as well.)
- Highs on June 9 didn't get out of the 50s for the first time since May 16. That's 10-20 degrees below average.
- Light snow was observed above 3300 feet on Mount Mansfield on June 12th.
- Historical low lake levels were reached on Lake Champlain for June 18th. At 95.62 feet, this was the lowest level reached for this date since 1999.
- Sustained winds of 65 mph with gusts of 108 mph were observed in Jericho during the storm on June 21.
- On June 26, Burlington had its 5th reading of 90 or above. The normal number of days with readings of 90 or above is 5 or 6 for the entire summer.



- A lightning strike likely sparked a South Hero fire on June 29.
- Eden Mills topped the 24-hour precipitation chart on June 29th, with 5.30 inches of rain.
- As of June 28, 2016, the [US Drought Monitor](#) showed moderate drought conditions in southeastern VT.
- Despite end-of-month rains, the July 2, 2016 [Palmer Drought Index](#) still has some moderate drought in VT.

Concerns Heighten Over Defoliators

As many of you have observed, heavy defoliation by the **Forest Tent Caterpillar** (FTC) is occurring in Vermont. Outbreaks tend to be cyclical; our last experience with these voracious native insects was in 2006. A leaflet that describes the current status of forest tent caterpillar, and provides management information for sugarmakers, forest land managers, and others concerned about protecting tree health, is now available at this link:

http://fpr.vermont.gov/sites/fpr/files/Forest_and_Forestry/Forest_Health/Library/VTFPR%20Forest%20Health%20Leaflet-Forest%20Tent%20Caterpillar_2016.pdf.

FPR staff who monitor sugar maple stands as part of the North American Maple Project have observed "mega FTC infestations" in some plots.



Satin moth caterpillars have been enjoying hearty meals on poplar and willow, causing heavy defoliation in scattered locations. When they are no longer feeding, you may see the distinctive webbing in which they make their cocoons.



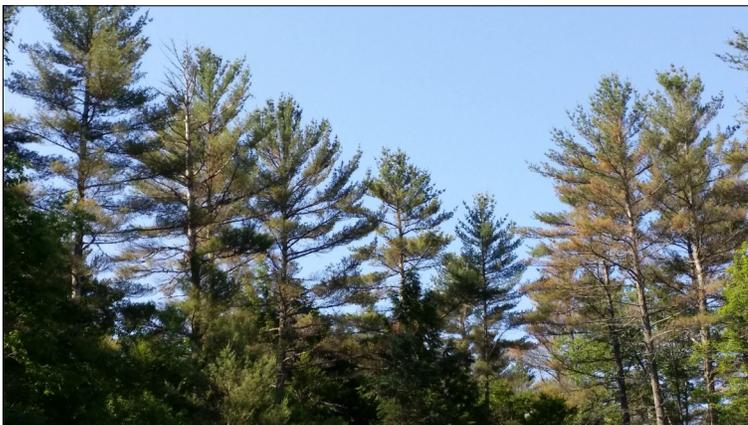
Satin moth caterpillars (above) make cocoons in distinctive webbing.

Noticeable defoliation by gypsy moth (below) has not been reported.

Photos: R. Kelley



Nearby states are seeing substantial defoliation by **Gypsy Moth**, but we don't know of any in Vermont. If you have seen high populations of gypsy moth caterpillars, we would be interested in knowing of locations where populations are building.



Disturbing Browning of White Pine

Reports of white pine needle damage continue, with the condition even more widespread and severe than it has been in recent years. As summarized in a publication about [dramatic needle browning and canopy dieback of eastern white pine](#) produced by UMass, the cause is not fully understood. Similar symptoms have been observed

throughout New England and in New York. The extensive footprint suggests that weather is an important factor. Several fungi have been associated with the disease. One of them, the brown spot needle blight, is more likely to spread when weather in June is wet, so that disease, at least, may be less severe in 2017.

Dandelion look-a-like is an early detection invasive

Wall Lettuce (*Mycelis muralis*) is an early detection invasive species in Vermont. While not well established, it has the potential to spread quickly and outcompete native flora. It is a watch list species in New Hampshire, and soon to be added to the watch list in Vermont, meaning the plant has invasive tendencies, but is not yet prohibited.

A member of the Aster Family (Asteraceae) native to temperate Europe, Wall Lettuce gets its name for its habit of growing along fences and walls. This plant reproduces almost exclusively by seed, where a single plant can produce 500 seeds in suppressed conditions, and over 11,000 seeds in full sun. Wall lettuce is cold tolerant, and found in forests, forest edges, clearings, and disturbed habitat. This plant has spread across New England, the North West, Great Lakes Region, Alaska, British Columbia, Ontario, and Quebec. Look for this plant now, as it is starting to flower across Vermont, with southern counties already seeing blooms. Wall lettuce also produces a rosette that can overwinter. Be careful when pulling or picking seed heads, as the plant exudes a milky substance that can cause slight skin irritations in some people.

To learn more, check out resources at the New England Wildflower Society ([NEWFS](#)), [Nature Gate](#), and the [Burke Museum](#).



Wall lettuce produces an open panicle, with 5 yellow ray flowers. Leaves are pinnately lobed, with deep indentations, and lower leaves have clasping projections at the base. Similar in appearance to dandelion leaves, wall lettuce leaves have large triangular tips. The seeds are equipped with a pappus (tuft), making wind dispersal an important factor in their spread. Photos: E. Spinney, VT FPR; [R. Videki](#), CC by NC 3.0; [L. Mehrhoff](#), CC by 3.0.

Insect Shorts

An agromyzid fly, commonly known as the **[oak shothole leafminer](#)**, feeds on newly emerging oak leaves, causing Swiss-cheese-like holes to develop. Larval mines may also be present.

[White-spotted sawyers](#) are in flight, trying not to look like **[Asian longhorned beetles](#)** suspects. In the photo below, the beetle is sporting a necklace of phoretic mites.

Though we often associate **[rose chafers](#)** with flowers, they feed on the foliage of many trees, including plum, as shown in the photo below.

[Big-headed ground beetle](#), a predator of cutworms and other insects, goes into a temporary cataleptic state when handled.

Clockwise from top left: Big-headed ground beetle, oak shothole borer, white-spotted sawyer, and rose chafers. [D. Cappaert](#), [G. McElwain](#), [S-H Chung](#), [M. Ferguson](#).



[Pine Leaf Adelgid](#) females line up along white pine needles to lay their eggs. The young move to new growth, where they can cause shoot mortality. Their alternate host is spruce,, where they cause a distinctive gall

Pine leaf adelgid females with their eggs on white pine, shoot damage, and distinctive gall on red spruce. Photos: [R. Kelley](#)



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.