

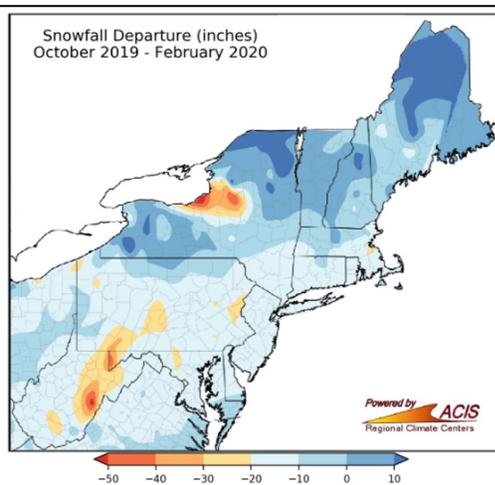
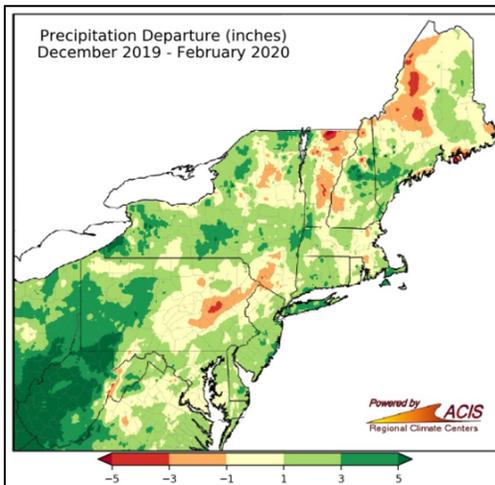
Vermont Forest Health

Insect and Disease Observations – March 2020

Department of Forests, Parks & Recreation
March 2020 vtforest.com

Winter Recap: Weather

Vermonters faced a short and mild winter of 2019-2020, compared to years past. From December 1 to February 29, state wide temperatures averaged 23°F, which was four degrees warmer than the winter of 2018– 2019. Average precipitation across the state was 9.47 inches, which averaged 2.04 inches less than last year’s average.



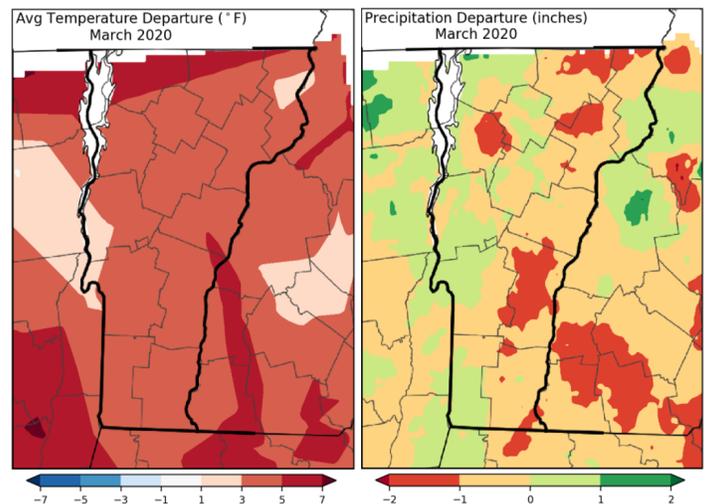
Winter snowfall ranged from 10 inches below normal (light blue) to 10 inches above normal (medium blue).

Winter precipitation and snowfall departure from normal. Maps and data: [Northeast Regional Climate Center](http://NortheastRegionalClimateCenter.com).

Warming Trends Lead To A Mild March

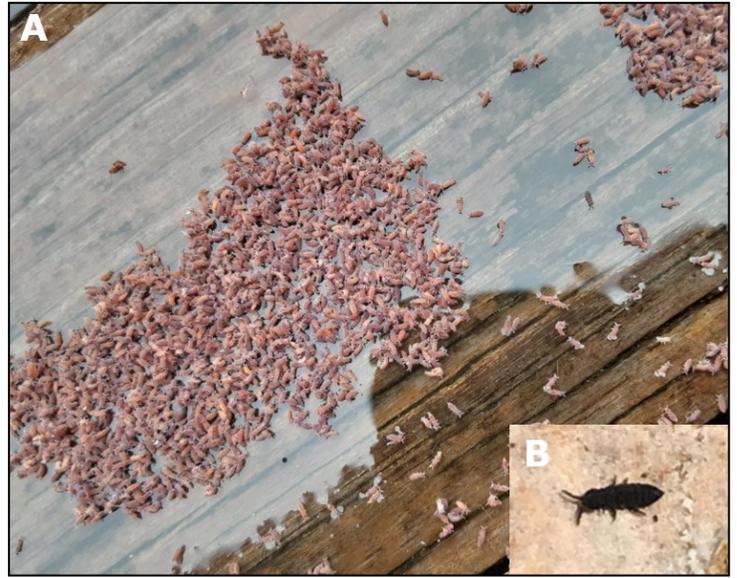
March of 2020 was warmer and wetter than March of 2019. State wide temperatures averaged 33°F, which was seven degrees warmer than March of last year. With the start of Spring, we experienced a monthly high between 40°F and 55°F in most parts of the state. Statewide precipitation averaged 2.85 inches, which was 0.79 inches higher than March of last year.

Temperature and precipitation departure from normal. Maps and data: [Northeast Regional Climate Center](http://NortheastRegionalClimateCenter.com).



“Spring”tail Emergence

Once again, [snow fleas](#) announced the waning days of winter by showing up in large clusters starting in the warm days of February. Snow fleas are not actually fleas but springtails. When you stop to look, these black specks on the snow are in motion. With no wings, they “jump” without using their legs, even though they have six. These tiny gymnasts can travel up to 8 inches when a forked appendage at the end of their abdomen, the “furcula”, catapults the springtail into a somersault. They may not “stick” the landing, but quickly get back on their feet if upside-down. Watch springtails in action in this [video](#). Snow fleas are detritus feeders, and generally spend their life in moist soil or litter. It’s not clearly understood why they emerge onto the snow; one theory is to feed on pollen and other organic matter on the surface. Or maybe to let us know the days are getting longer and spring is on the way.



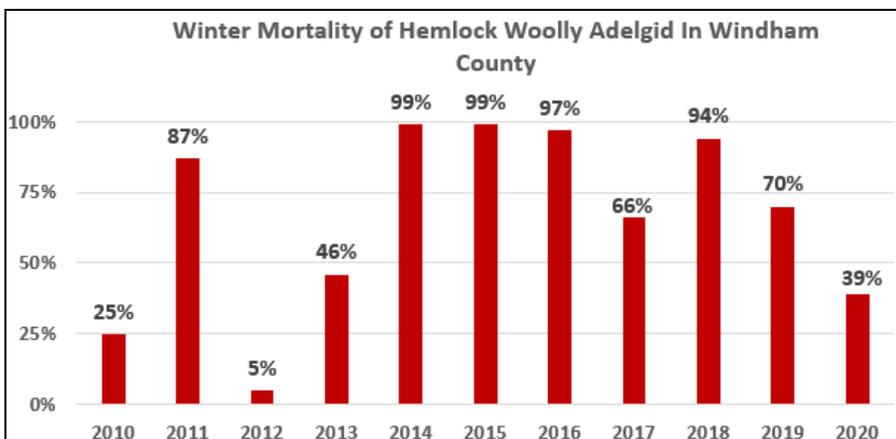
A: Mass of snow fleas aggregating on a snowy deck. Photo credit: Tiffany Mays.
B: Enlarged photo of a snow flea. Photo credit: Gabe Kellman.

Hemlock Woolly Adelgid Overwintering Mortality

Thirty– nine percent of the hemlock woolly adelgids (HWA) examined during the annual winter mortality survey were dead. This decline in winter mortality compared to past years may be due to increasing winter temperatures. In the past, we have often found infestations in new locations following years with mild winters and low levels of HWA mortality. Currently, HWA is primarily found in Windham County, however it has also been observed in Springfield and Pownal. 2019 surveys did not observe spread of HWA within the state. Similarly to past years, Vermont as well as nearby states continue to find HWA occasionally mixed with elongate hemlock scale.



HWA infested branch. These insects use the white wool, known as ovisacs, as protection from environmental conditions and predators. Photo credit: FPR Staff.

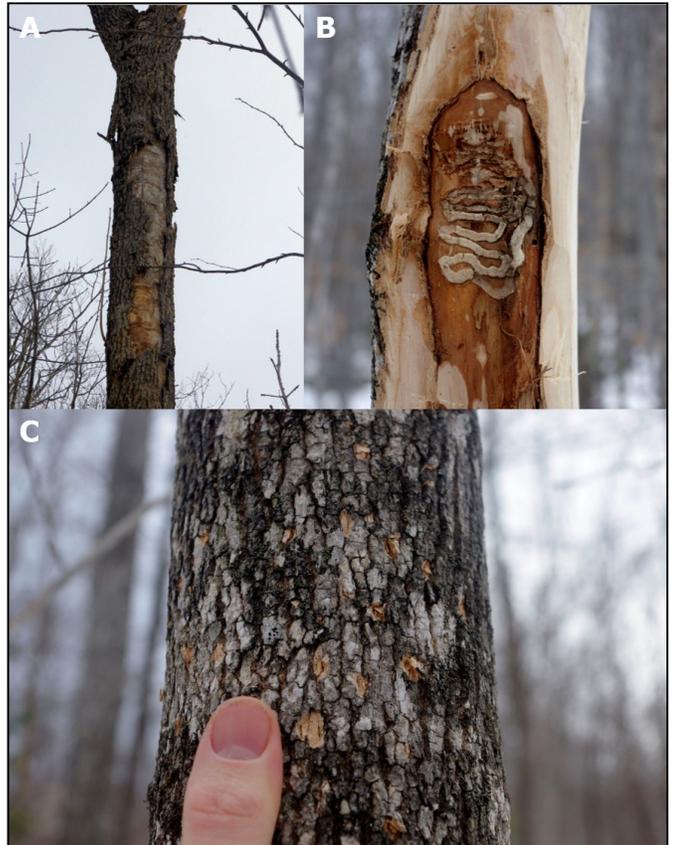


Assessments of overwintering mortality in hemlock woolly adelgid conducted on March 18, 2020 indicated that 39% of the adelgids had died.

Emerald Ash Borer Update

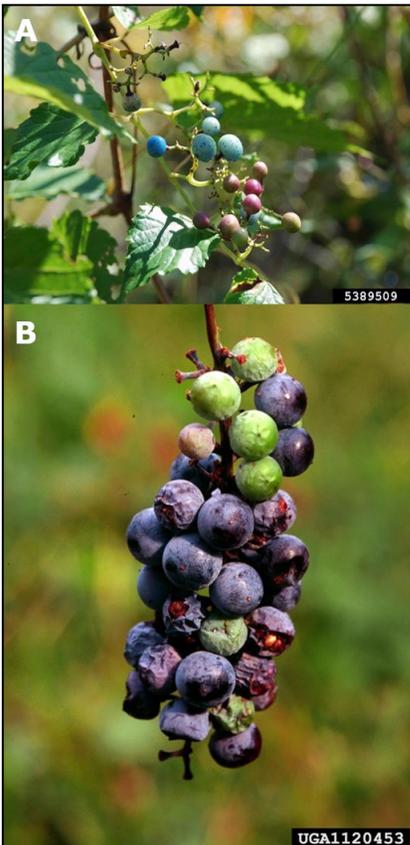
An observation by state lands forester, Dan Singleton, prompted the confirmation of [emerald ash borer](#) (EAB) in L.R. Jones State Forest in Washington County. This invasive insect of ash trees has been observed in the state since 2018.

Early EAB infestations can be hard to detect and are often overlooked until becoming much more severe. Several trees in L.R. Jones State Forest were documented as exhibiting signs of EAB, including severe dieback, bark splitting, woodpecker flecking and S-shaped galleries beneath the bark. Several larvae were found overwintering in infested trees. During spring, these larvae will pupate and emerge as adults in early June. For more information on EAB identification and how to report a sighting, please visit [VTinvasives.org](#).



A: Bark splitting. **B:** S-shaped EAB gallery.
C: Woodpecker flecking. Photo credit: FPR Staff.

Vermont Native Plants vs. Invasive Plant look-a-likes: invasive porcelainberry vs. native grapes



Despite the snow falling outside, Vermont's growing season will soon be in full swing. We'll soon see in our forests the spring ephemerals blooming, tree buds bursting, and the swaying strands of various vining plants. These trellis' of wild grapes and Virginia-creeper are reminders of the invasive plant: porcelainberry (*Ampelopsis brevipedunculata* (syn: *glandulosa*)).

Also known as "Amur peppervine", "creeper", and "wild grape" it has been widely planted as an ornamental plant, even available online for purchase. However, it is now recognized to be highly invasive in habitats like forests and forest edges. Many of us may be dreaming of our gardens and yards as a means of distraction right now (I know I am!). As we shop, we need to consider the potential invasiveness of any new plant and resist the temptation to order new and interesting plants from online without first researching the potential impact it could have on our forests.

A: Fruits of invasive porcelainberry. Photo Credit: N. Loewenstein, Auburn University. **B:** Fruits of native summer grape. Photo credit: J.H. Miller & T. Bodner, Southern Weed Science Society.

Porcelainberry was first recorded in the U.S. in the late 1800s, as a landscape and ornamental plant. This deciduous, woody vine, which can reach heights over 20', originates from eastern Asia.

The leaves have serrated margins and are heart-shaped to deeply lobed. Other identifiers include the presence of obvious lenticels (gas exchange pores in the bark), as well as solid white centers to the vine (pith). The primary mode of spread is through wildlife and human activity moving the seeds in the fruit.

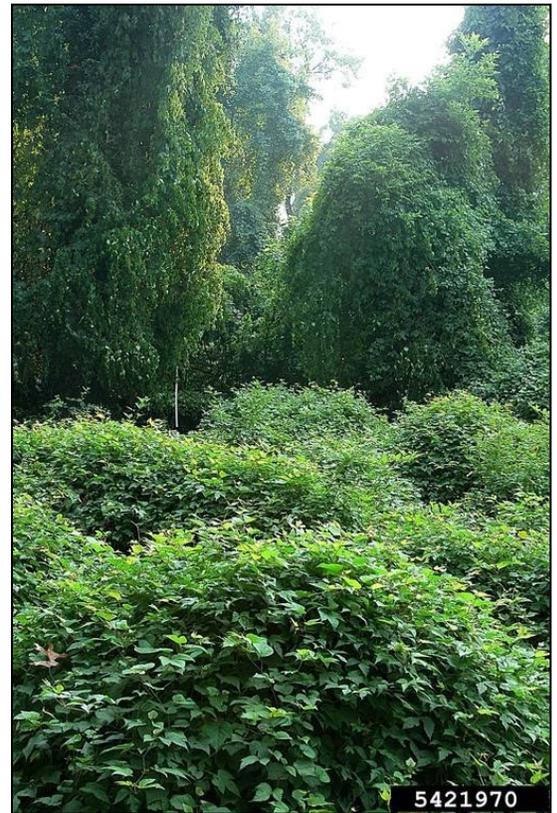
Porcelainberry can be found in disturbed habitats, in landscaping, along the shores of lakes and rivers, in marshes, forests, and forest edges. This species belongs to the grape family (Vitaceae), along with Virginia-creeper (*Parthenocissus quinquefolia*) and the native grapes (*Vitis* spp.- summer grape, fox grape, river grape). The native grapes like fox grape, have a brown pith and lack obvious lenticels.

As one of the common names suggests, it can be confused for the true wild grapes (*Vitis* spp.). Those dark colored fruits, the twining vining nature of its growth, and the leaf shape all assist in this confusion.

While widely distributed as an ornamental plant, it has only been officially recorded to have escaped and spread in natural habitat in New England in the states of Connecticut, Massachusetts, New Hampshire, Rhode Island, and New York. ***It is not currently recorded in natural habitat in Vermont, and therefore it is considered an early detection species of concern.***

Its ability to grow in a variety of conditions (light, soil, temperature) and its hearty root system mean vines can persist when escaped from an ornamental planting. Rapid and dense growth of this plant means that porcelainberry can smother other understory vegetation and even climb and overgrow trees. The environmental impact it had in other New England states has led to its listing on the [Unofficial Vermont Watchlist](#).

If you find porcelainberry growing outside of an ornamental planting in Vermont, please report it to VTinvasives.org.



Infestation of porcelainberry on a forest edge. Photo credit: S. Manning, Invasive Plant Control, Bugwood.org.



<p>For more information, contact the Forest Biology Laboratory at 802-565-1585 or:</p>	<p>Windsor & Windham Counties..... Bennington & Rutland Counties..... Addison, Chittenden, Franklin & Grand Isle Counties..... Lamoille, Orange & Washington Counties..... Caledonia, Orleans & Essex Counties.....</p>	<p>Springfield (802) 289-0613 Rutland (802) 786-0060 Essex Junction (802) 879-6565 Barre (802) 476-0170 St. Johnsbury (802) 751-0110</p>
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