

Commercial Horticulture

April 23, 2021

### In This Issue...

- Pollen, temperatures and cicadas
- Periodical cicadas this week
- Spiny witchhazel gall aphid
- Tuliptree scale
- Japanese maple scale
- Update on fruit tree diseases
- Pine bark adelgid
- Ambrosia beetle update
- Eastern tent caterpillars and boxwood leafminer adults
- Boxwood psyllid
- Leaf spots on mountain laurel and rhododendron
- Andromeda lace bug
- Fern scale
- Deer Activity

Beneficial of the Week: Egg parasitoids of spotted lanternfly  
Weed of the Week: Goutweed  
Plant of the Week: *Cercis canadensis* 'Ruby Falls'

**Degree Days**

**Pest Predictions**

**Phenology**

**Conferences**

[Pest Predictive Calendar](#)

**IPMnet  
Integrated Pest  
Management for  
Commercial Horticulture  
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If you work for a commercial horticultural business in the area, you can report insect, disease, weed or cultural plant problems (**include location and insect stage**) found in the landscape or nursery to [sgill@umd.edu](mailto:sgill@umd.edu)

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Disease Information: Karen Rane (Plant Pathologist) and David Clement (Extension Specialist)

Weed of the Week: Chuck Schuster (Retired Extension Educator)

Cultural Information: Ginny Rosenkranz (Extension Educator, Wicomico/Worcester/Somerset Counties)

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### Pollen Counts High, Low Temperatures Overnight, and Cicadas

By: Stanton Gill

#### Pollen Counts

Looking at the pollen charts for Baltimore this week, the counts on Wednesday through Friday are all above 10.5, with 12 being the highest on the charts. Over the weekend, they drop down to 8.9 – 9.2, which is slightly lower. Oaks are shedding pollen right now, and you can see pollen covering your customers' dark colored vehicles. People who suffer from pollen allergies are not happy people this week.

#### Freeze in Some Areas

David Clement, UME-HGIC, reported that the temperature went down to 28 °F last night in Finksburg. Other areas, the temperature dropped down close to freezing, but did not reach 32 °F. If you see any damage, let Dave know at [clement@umd.edu](mailto:clement@umd.edu).

#### Cicada Nymphs

We are getting a lot of reports of nymphs at the top of exit holes and some nymphs sitting next to the holes in the ground. It was so cold at night on Wednesday and Thursday that the nymphs moved back into their holes in the ground at night. Paula Shrewsbury has the feature article on cicadas this week.

## What Are Brood X Periodical Cicadas Doing This week?

By: Paula Shrewsbury, UMD

The **FIRST CICADA EMERGENCE of 2021** was reported to us (UMD) last Monday, April 19<sup>th</sup> in Towson, MD (to my knowledge this is the first). We will likely be seeing more of these early emerging cicadas referred to as “outliers” over the next few weeks as we approach the large synchronous emergence that we should see between mid-May and the first days of June (give or take since we are talking biology). **If you see cicadas emerging and moving onto trees and molting, please take a picture and let me know ([pshrewsbury@umd.edu](mailto:pshrewsbury@umd.edu)) and report it on the Cicada Safari app** (link for this is below).

**Other updates.** A few weeks ago, we started to see cicada holes / tunnels in a few locations. The cicada nymphs (5<sup>th</sup> instar / last immature stage) burrow a gallery up to the surface, check things out, and then go back down to wait for the soil temperature to reach 64 °F – their cue it is time to emerge. As we get closer to the mass synchronous emergence of Brood X periodical cicadas, there are more and more reports of cicada holes in the ground under trees, and animal damage from animals (fox, raccoons, dogs, etc.) digging to find cicadas to eat. In addition to the holes, you may also see mud mound (turrets) that make a “cap” over the hole opening. If you break off the mud turret, you will see the hole underneath. It appears that mud turrets are more common in wet soils. We are also getting several reports of cicada tunnels and nymphs found under landscape bricks, flagstone, pavers, etc. The nymphs are trying to burrow to the surface but when they hit the hard surface, they burrow horizontally in search of the soil surface, so when you lift the pavers you often see the nymphs.

The nymphs that you might be seeing at this time are likely not “emerging” yet, they are just moving up and down in the soil and you may see them. One of the nymphal characteristics to look for is the color pattern just behind the head (the pronotum). Nymphs that are not ready to emerge are tan in color, the nymphs that are ready to emerge, climb trees, and molt have two black patches on their pronotum. To learn more about this color pattern and see pictures [click here](#).

If you are curious as to what those cicada tunnels look like underground, [click here](#) for an activity to examine those tunnels more closely.

### ***Help us track Brood X periodical cicadas with the Cicada Safari App!***

The purpose of this *Citizen Science project* is for you to help identify periodical cicadas, and share the location where you found them. Scientists like Dr. Gene Kritsky, of Mount St. Joseph University, and colleagues will use the data to determine exactly where periodical cicadas exist, in order to create maps of cicada broods and generations, and learn more about cicada biology, and changes in their populations in the future. All you need to do is download the app on your phone (see below), take a picture, and upload the picture.

Website for the app: [Cicada Safari App](#).

Android: <https://play.google.com/store/apps/details?id=edu.ms.j.cicadaSafari>

iOS/Apple: <https://itunes.apple.com/us/app/cicada-safari/id1446471492?mt=8>

### ***For more information on Periodical Cicadas see:***

-The *Department of Entomology and its Cicada Crew* (Drs. Shrewsbury and Raupp, and a group of graduate students) have created a [Cicada Crew UMD website](#) that answers questions about Periodical Cicadas and will help everyone learn more about these amazing insects.



**Periodical cicada molting and the newly emerged (teneral) adult. It will take a few hours for the cicada to harden off and darken in color.**

**Photo: by P.M. Shrewsbury, UMD**



-YouTube on “How to net a small tree to exclude cicadas” can be found at:

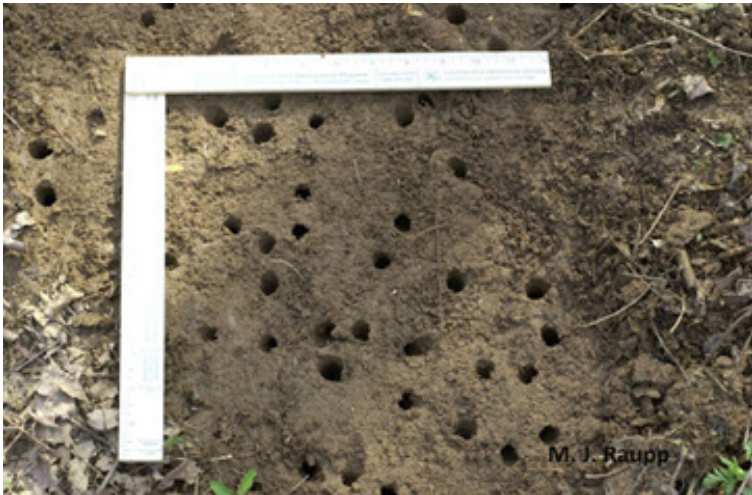
<https://www.youtube.com/watch?v=X4vjvdfnMM>

-Cicada mania is a great source of accurate information on periodical cicadas, along with having some fun cicada activities.

<https://www.cicadamania.com/cicadas/all-the-cicada-faqs/>

-The Cicada Safari website has information and kid activities relating to cicadas in addition to links to download there cicada tracking app.

<http://cicadasafari.org/>



Cicada emergence holes over a square foot of ground.  
Photo: M.J. Raupp, UMD



Cicada emergence hole with a mud turret on top of it. Mud turrets often are found in wet soils.  
Photo from CicadaMania.com



Cicada tunnels, holes, and nymphs found when a landscape brick was lifted.  
Photo: K. Jayd, UMD



Mud turrets on top of emergent holes in Owings Mills as of the morning of April 23  
Photo: Mark Schlossberg, ProLawn Plus, Inc.

### Webinar: Brood X - The Cicada Takeover on May 4th at 2:00 - 3:00 PM

Coordinated by W.S. Connelly Companies. Presentation by: Stanton Gill

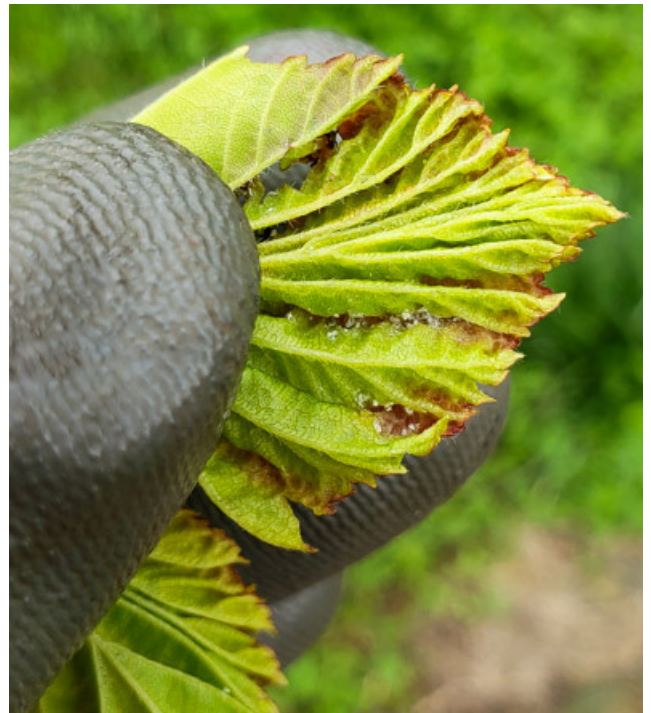
Registration Links: <https://conta.cc/2RDNJpy> or [https://us02web.zoom.us/webinar/register/WN\\_ZT8GoD1eQDOl8PGWZoBeWw](https://us02web.zoom.us/webinar/register/WN_ZT8GoD1eQDOl8PGWZoBeWw)



## Spiny Witchhazel Gall Aphid

Marie Rojas, IPM Scout, found spiny witchhazel gall aphid feeding activity starting on newly-expanding leaves of Birch 'Heritage' in Laytonsville this week. Witchhazel is the alternate host for this aphid on which it causes a spindle gall on the top side of foliage. This aphid causes red puckering damage to the foliage of birch and the woolly aphids can be found on the undersides of the leaves.

**Control:** Most often, control is not necessary. Many natural enemies such as lady bird beetles, syrphid flies, soldier beetles, and parasitic wasps are active at this time of year and usually move into the area to reduce the aphid populations. If populations are high, use a low impact material like horticultural oil to minimize the impact on the beneficial insects that are present



If you find spiny witchhazel galls on the undersides of birch leaves, check for lady bird beetles and other beneficial insects which often show up as well

Photos: Marie Rojas, IPM Scout

## Tuliptree Scale

Marie Rojas, IPM Scout, found immature tuliptree scale on *Magnolia* 'Royal Star' and 'Ann'. These 2nd instars are the overwintering stage and look like black freckles along the stem. The scale will swell up through the spring and summer and mature later in the summer with crawlers produced in this area in September.



An ant (upper part of photo) is tending these immature tuliptree scale for the honeydew that they produce

Photo: Marie Rojas, IPM Scout



## Japanese Maple Scale

Marie Rojas, IPM Scout, is finding a lot of Japanese maple scale in Montgomery County on a wide variety of plants this week. Mark Schlossberg, ProLawn Plus, Inc. is also finding this scale in Columbia. This scale blends in very well on the trunks of trees and can be difficult to detect, so monitor plants closely.

Treat with oil now and come back at crawler stage (late May/early June) and treat with Talus or Distance. Monitor for the second generation in late summer. See our [fact sheet](#) on Japanese Maple Scale and a [plant host](#) list. For heavy infestations, it might take a year or two to bring the population down.



Look at tree trunks closely when monitoring for Japanese maple scale  
Photo: Mark Schlossberg, ProLawn Plus, Inc.



As we get close to crawler period, you can use double-sided tape to monitor for the crawlers



Look for purple Japanese maple scale crawlers late May into June

## 2021 Disease Update: Mature Apple Scab Spores Peak is Near

By: Kari Peter, Penn State Extension

Although no apple scab infection events are forecast for April 17–23, 2021, growers need to remain vigilant for changing weather conditions. We are nearing the peak for the maximum number of overwintering spores being available. For growers experiencing bloom, the risk of fire blight is low. The number of overwintering apple scab spores are nearing their peak. This means the greatest potential for disease pressure should be anticipated over the next two to three weeks if disease conditions, such as wet weather, manifest. Cooler temperatures do not slow down apple scab. It just requires more wetness hours for infection to occur. Although we have dry weather over the coming week, we all know weather conditions can change quickly in our region, so growers need to remain vigilant.

### Pine Bark Adelgid

By: Stanton Gill

White pine plantings appear to be increasing in popularity. With this plant's “resurgence”, we are receiving several pictures of pine bark adelgid on the trunks and major branches of white pine. It is even on plant material that is being shipped in from other states. With the activity of the multi-colored ladybird beetle, the pine adelgid populations have been kept in check in many locations, but not all.

A tree heavily infested with pine bark adelgid may have the look of snow on its branches and trunk. Pine bark adelgids overwinter predominately as immature females. When temperatures reach 50 °F, the female is mature and begins to produce a coating of woolly wax, which is what we are seeing right now in Maryland. The female of the pine adelgid deposits about 25 eggs under the woolly mass before dying. When the crawlers emerge from the eggs, they move to a new location and begin to feed. Once they have inserted their mouthparts into the bark, they are no longer capable of movement.

Both winged and wingless adults result from the next several generations. Winged forms will fly to adjacent trees, while wingless forms remain on the same trees. Five generations are thought to occur each year, but all stages may be present at any given time during the growing season.

**Control:** A 1 – 2% horticultural oil gives good control in April.



Heavy infestations of pine bark adelgid can coat large branches



## Ambrosia Beetle Update

By: Stanton Gill

On Tuesday, we checked the alcohol baited Lindgren traps at CMREC and only one *Xylosandrus germanus* was present. We checked the Brookeville trap site and two *Xylosandrus germanus* and one *X. crassiusculus* was present. The winds on Wednesday keep flight activity down for the beetles. On Thursday and Friday it was cool, near freezing at night, resulting in little flight activity. Temperatures are cooler through the weekend and the light counts will likely continue until early next week. It is interesting that we are getting lower counts, so far, this season than other years.

## Eastern Tent Caterpillars

By: Stanton Gill

Bob Mead, Mead Tree and Turf, reported on Friday, April 16<sup>th</sup> that he found eastern tent caterpillars hatching in the Gaithersburg area. If possible, destroy the tents when found.

He also reported seeing flight activity of adult boxwood leafminers in the same area.



Eastern tent caterpillars are hatching in Gaithersburg now

## Boxwood Psyllids

Look for boxwood psyllid nymphs feeding on terminal growth of boxwoods. The boxwood psyllid causes tip growth to cup and curl. Look for a white, waxy material that the psyllids produce within the cupped leaves. Damage is rarely significant enough to warrant treatment. Materials such as Avid, Endeavor, Altus, or Acephate should all control this insect.



Look for the white, fluffy wax on the tips of boxwoods produced by boxwood psyllids

## Leaf Spots on Rhododendron and Mountain Laurel

By: D.L. Clement and K. K. Rane

Your clients may be asking about spots on their rhododendrons and mountain laurels this spring. Several fungal leaf spots can be observed on these plants in the landscape. Some of the most common pathogens in Maryland are *Pseudocercospora handelii* on rhododendron and *P. kalmiae* on mountain laurel. These leaf spots can be found on both the upper and lower leaf surfaces as well as leaf petioles. The spots can be circular, but are often more irregular in shape and may sometimes run together to cover large areas of the leaves.

These diseases are often considered minor on their hosts, however under the right conditions they can cause substantial defoliation and infection can spread to adjacent healthy plants. Under low disease pressure removal of infected leaves will lessen damage. If disease is more severe then early spring applications of labeled fungicides may be needed to manage leaf infection. Severely defoliated plants will be weaker and more susceptible to canker pathogens such as *Botryosphaeria* dieback which can only be managed by pruning out dead stems.

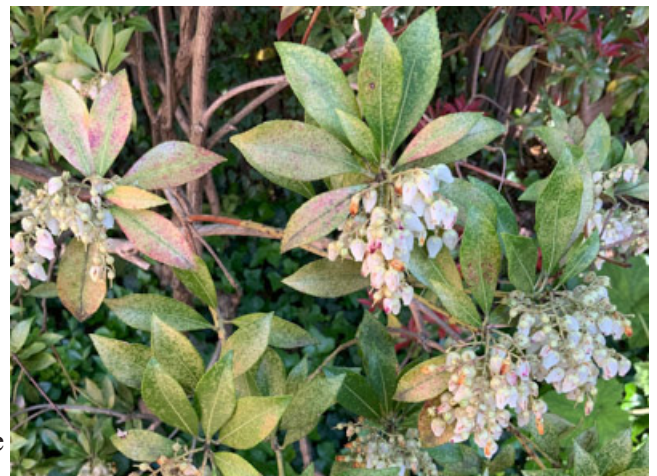


**Pseudocercospora leaf spots on mountain laurel (left, photo: J. Semler, UME) and rhododendron (right, photo K. Rane)**



## Andromeda Lace Bugs

Heather Zindash, IPM Scout, reported on April 23 that andromeda lace bugs have hatched on *Pieris* in DC.. Lace bugs have multiple generations per year in Maryland. Eggs overwinter inserted in plant tissue. Look for yellow stippling of new growth. Look on the underside of foliage for nymphs, adults, and black fecal spots. Damage on new growth indicates eggs have hatched and the new generation has started to feed. Get good coverage of horticultural oil on the underside of foliage to reduce populations. Many products are labeled for lace bugs.



**Look on the undersides of *Pieris* if you see heavy, yellow stippling on leaves  
Photo: Heather Zindash, The Soulful Gardener**



## Fern Scale

Ross Fornaro, Naturalawn of America, found fern scale on liriopie this week. Look for yellow spotting on liriopie. These spots are associated with feeding of the fern scale (*Pinnaspis aspidistrae*). Feeding may also result in stunted growth and leaf drop. Pruning of top growth is ineffective in eradicating this scale as females tend to burrow within the crown of the plant. Crawlers emerge along with the new shoots. Systemic insecticides such as Altus, dinotefuran, and acephate (Orthene) have shown to be effective. This scale is typically introduced through plant materials shipped from southern states so inspect plant material carefully.



**Yellow spotting on liriopie can be an indication of fern scale feeding**  
Photo: Ross Fornaro



## Deer Activity

Tim Overstreet, Howard County Dept. of Recreation and Parks found Western Arborvitae 'Steeplechase' with deer feeding damage in Howard County. He noted that they had planted eleven Steeplechase arborvitae and three of them have been fed on.

**Deer have been feeding on this small western arborvitae tree and several others in one planting in Howard County**  
Tim Overstreet, Howard County Dept of Recs and Parks

## Beneficial of the Week

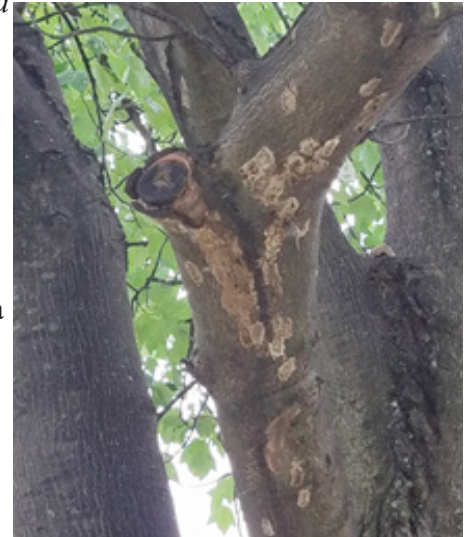
By: Alina Avanesyan and Paula Shrewsbury

### Egg parasitoids of the spotted lanternfly: time to attack!

In one of the articles last fall, we talked about the spotted lanternfly, *Lycorma delicatula*, an aggressive invasive leafhopping pest in the eastern US, and two of its predators: the wheel bug and the predatory stink bug. Besides the predators which hunt the spotted lanternfly adults, egg parasitoids are also very important natural enemies of this invasive pest. In its native range in China, as well as in Pennsylvania where the spotted lanternfly was accidentally introduced in 2014, this pest completes one generation per year. [The adults](#) lay eggs from mid-August until early November and the spotted lanternfly overwinters as eggs. The eggs typically hatch from mid-April to (a lot of them) early May. So it is about the time we could see the effect from the egg parasitoids' work!

To date, the spotted lanternfly is established in three counties in Maryland: Cecil, Hartford, and Washington Counties. The spotted lanternfly adults lay a lot of egg masses on various surfaces: you can find the egg masses on tree trunks, metal fence posts, rocks, backyard furniture, car tires, etc. [The egg masses](#) are cryptic, about 1.5 inches long and can be white and glossy (when first deposited) or grey/brown (older egg masses). In the eastern US, the egg masses can be found on tree-of-heaven, red maple, American beech, chestnut oak, American sycamore, black cherry, and other trees. Each egg mass contains 5-10 rows of small eggs, from 10 to 30 eggs in each row, and is covered with a waxy substance, most likely for protection from predation and winter conditions. Although we still do not know much about the natural enemies of the spotted lanternfly, we know that at least two egg parasitoids can successfully attack the spotted lanternfly egg masses: *Ooencyrtus kuvanae*, which attacks the spotted lanternfly in the US, and *Anastatus orientalis*, which attacks the spotted lanternfly at relatively high rates in its native range in Asia, which makes it a great candidate for biocontrol of the spotted lanternfly in the US. We will focus on these two egg parasitoids in this article.

The Encyrtid wasp, *Ooencyrtus kuvanae* in the family Encyrtidae is a tiny parasitoid wasp; the body length of both males and females ranges from 0.87 to 1.35mm. The body is dark with metallic sheen. *Ooencyrtus kuvanae* is native to Japan and it was introduced to the US over 100 years ago for biological control of the gypsy moth (another invasive pest). Naturalized populations of *O. kuvanae* now attack the gypsy moth and some other lepidopteran hosts. In 2016, however, researchers confirmed that *O. kuvanae* successfully parasitizes eggs of the spotted lanternfly in Pennsylvania. *Ooencyrtus kuvanae* is a solitary egg parasitoid meaning that a single female wasp typically lays one egg per host egg, though she lay an egg in multiple host eggs. However, *O. kuvanae* females can also oviposit into already parasitized host eggs (superparasitize).



Spotted lanternfly egg masses on a maple tree.

Photo: A. Avanesyan

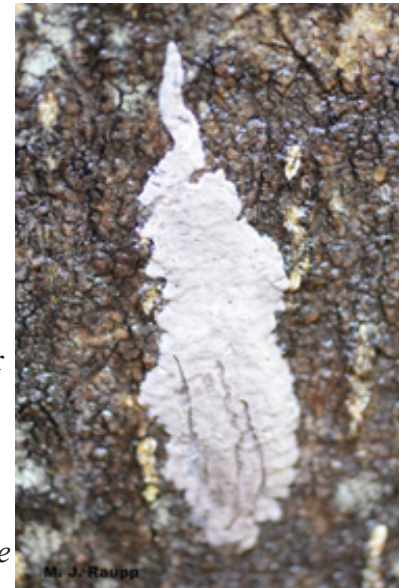


Spotted lanternfly egg masses on wood.

Photo: Emelie Swackhamer, Penn State University, Bugwood.org



*Ooencyrtus kuvanae* has a great potential for biocontrol of the spotted lanternfly as its life cycle is relatively synchronized with spotted lanternfly egg masses. *Ooencyrtus kuvanae* overwinters as fertilized adult females in the forest litter; the adult parasitoids emerge in May overlapping with the hatching of spotted lanternfly eggs. It was shown under laboratory conditions that *O. kuvanae* adult emergence occurs a week after the first hatching of spotted lanternfly eggs. In the field, from the studies on gypsy moth, we know that *O. kuvanae* females become active in mid-April parasitizing unhatched overwintering gypsy moth eggs. Then, *O. kuvanae* can complete at least 4 generations in the field; parasitoid populations reach their peaks in August and September, and prepare to overwinter in October. It is still unknown how effectively *O. kuvanae* can parasitize the spotted lanternfly eggs in the field; currently in the US, spotted lanternfly adults lay new eggs in October which might not be favorable for *O. kuvanae* females preparing to overwinter. Still, a potential shift of the spotted lanternfly egg laying period to August-October (as it occurs in Asia) would be beneficial for *O. kuvanae* as a biocontrol agent of the spotted lanternfly. We will have to wait and see what biological control *O. kuvanae* will have on spotted lanternfly in the field.



**Freshly deposited spotted lanternfly egg mass.**  
Photo: M. J. Raupp

*Anastatus orientalis* is a parasitoid wasp in the family Eupelmidae, also a solitary egg parasitoid and a major parasitoid of the spotted lanternfly in its native range in Asia. Unlike *O. kuvanae*, however, *A. orientalis* overwinters as mature larvae inside the spotted lanternfly eggs with two hatching (eclosion) periods: April-May and August-September. *Anastatus orientalis* lives about 10 weeks and during that time can produce 100 offspring. It has been observed that the spring group (which hatches mostly in May) can parasitize the spotted lanternfly eggs which were not parasitized in Fall. In contrast, the parasitoids which hatch in September, parasitize the fresh host eggs only. This interesting strategy may be beneficial for *A. orientalis* to maintain its population as this parasitoid has a high host specificity to spotted lanternfly eggs. *Anastatus orientalis* can also exhibit host-feeding (consumption of host tissues) that additionally affects mortality of the spotted lanternfly egg masses. *Anastatus orientalis* does not occur in the eastern US habitats yet, but it is currently being evaluated in quarantine culture by USDA-APHIS researchers as a potentially effective biocontrol agent of the spotted lanternfly.



**A year-old hatched spotted lanternfly egg mass.**  
Photo: A. Avanesyan

It is about the time for the spotted lanternfly eggs to hatch! Egg parasitoids, both native and introduced, are very important in controlling the populations of the invasive insect pests like the spotted lanternfly. Although classic biocontrol agents which are co-evolved with invasive insects in the native range (like *A. orientalis*) might be very effective, natural enemies which have not coevolved with the spotted lanternfly can be successful, too, due to a higher vulnerability of the spotted lanternfly to novel agents. So hopefully naturalized *O. kuvanae* along with other native egg parasitoids might successfully exploit their novel hosts and effectively suppress spotted lanternfly populations. While we are waiting for this, we also could contribute to elimination of the spotted lanternfly egg masses by identifying them, reporting their location, and scraping or destroying them (please see the helpful information for the spotted lanternfly egg masses removal [here](#)).



Gypsy moth egg parasitoid wasp on gypsy moth egg mass, *Ooencyrtus kuvanae*.  
 Photo: Gyorgy Csoka, Hungary Forest Research Institute, Bugwood.org



*Anastatus orientalis* next to the uncovered spotted lanternfly egg masses.  
 Photo: Malek et al. (2019), Environ. Entomol.



### Nutsedge Emergence

Brian Scheck, Maxalea, Inc., is seeing nutsedge emerging in the Baltimore area.

### Weed of the Week

By: Chuck Schuster

The temperatures have been up and down. One day it is wonderful, and then we have frost and freeze warnings. Monitoring soil temperatures for weed seed germination is also useful as we watch for the emergence of the Brood X cicadas. Soils are damp to wet in many areas, which is slowing the progression of some plant material, but not others. In looking at a few landscapes, I found one of my difficult to control invaders, goutweed.

Goutweed, *Aegopodium podagraria* L. is a plant being found in landscapes and in some nursery settings currently throughout Maryland. Soils have been warm enough to start this plant off for the season. In one landscape bed seen on Wednesday evening, it was off to a good start, already about 4 inches tall. Goutweed will sometimes cause concern with its growing habit of “leaves of three”, but this plant is in a different family altogether than poison ivy. Goutweed, also known as bishop’s-weed and snow-on-the mountains. It is from the carrot family (Apiaceae family) and considered as a desired plant by some. It is classified by others as



an aggressive invasive. It is a creeping perennial that can grow to three feet in total height. It prefers moist shaded areas in most cases, but has been found in open areas of full sun. One of the reasons it is considered an aggressive herbaceous plant is that it has rhizomes, which increase the difficulty to obtain control. It is classified as invasive in some states. The leaves are found in groups of three with each having three leaflets, called triternate. This is one of the plants some people will love and will purchase to plant. The plant can be found variegated and sold in garden centers, the weed form having a lighter green leaf color. White, five-petaled flowers are small in size and can be found in bloom now and will continue to bloom through mid to late summer. These flowers are found on a leafy stem, which will reach heights up to three feet tall. Seeds are similar to carrot seeds, maturing in late summer. In understory settings, flowering stems rarely develop. This plant produces a long, white rhizome, which branches often. Goutweed produces a dense cover or canopy often preventing other vegetation from emerging. In the cultivated form, it is often used as a ground cover.

Goutweed is difficult to control by mechanical means including pulling. The rhizomes, once broken will create a new plant. Chemical control in landscape settings is possible using glyphosate products that will translocate into the roots/rhizomes. Remember to use extreme caution near desired plant materials. Carefully use where root to root contact may occur. Pre-emergent products do not work well with this plant as it also uses vegetative reproduction. Covering early in the season (mulch with landscape fabric) to prevent photosynthetic action can be a method of control. This method depletes the carbohydrate reserve, thus weakening the plant. This needs to be done early in the season prior to the plant storing reserves for the fall and winter. The smother and cover method is not always successful. Use of contact herbicides is not as effective unless one is prepared to return to the site and repeat applications at least weekly, as this plant will leaf out readily after defoliation.

**SOIL TEMPERATURES**

	Glenwood	Stevensville
April 18	45	
April 19	50	57
April 20	49	55
April 21	52	58
April 22	54	51



**Goutweed has rhizomes which can make it difficult to control  
Photo: Chuck Schuster, UME, Emeritus**

## Plant of the Week

By: Ginny Rosenkranz

*Cercis canadensis* 'Ruby Falls' is a weeping or cascading form of the native redbud. It has beautiful dark rose pinkish purple flowers on bright red stems that cover the branches in early spring. After the flowers fade, the glossy foliage emerges dark purple to maroon red in color and maintains that color until late summer when it turns green. In late autumn, the leaves turn yellow before falling. These compact deciduous trees were created by a cross between *Cercis canadensis* 'Forest Pansy' with its purple foliage and 'Covey' with its lovely weeping form. The plants prefer to grow in full sun to part shade, flowering best with full sun, but in the southern counties enjoying some late afternoon shade. They are cold hardy from USDA zone 5-9, fitting in all of Maryland landscapes and grow 6-8 feet tall and 5-6 feet wide. 'Ruby Falls' is not picky about soils or soil acidity as long as the soil is well drained. It is a perfect plant for a specimen plant or tucked into a small garden, *Cercis canadensis* 'Ruby Falls' attracts butterflies and hummingbirds, but doesn't attract deer. Light pruning after flowering will promote young healthy growth and keep the plants growing in the right shape. Pests include canker, verticillium wilt, leaf spots, and mildew.



The leaves of *Cercis canadensis* 'Ruby Falls' start out dark purple to maroon red before turning green in late summer

Photos: Ginny Rosenkranz, UME

## Pest Predictive Calendar “Predictions”

By: Nancy Harding and Paula Shrewsbury

In the Maryland area, the accumulated growing degree days (DD) this week range from about **147 DD** (Aberdeen) to **317 DD** (Reagan National Airport). The [Pest Predictive Calendar](#) tells us when susceptible stages of pest insects are active based on their DD. Therefore, this week you should be monitoring for the following pests. The estimated start degree days of the targeted life stage are in parentheses.

- Woolly elm aphid – egg hatch (**163 DD**)
- Spiny witchhazel gall aphid – adult/nymph (**171 DD**)



- Azalea lace bug – egg hatch 1<sup>st</sup> gen (**214 DD**)
- Roseslug sawfly – egg hatch / early instar (**230 DD**)
- Hemlock woolly adelgid – egg hatch 1<sup>st</sup> gen (**235 DD**)
- Boxwood leafminer – adult emergence (**249 DD**)
- Spruce spider mite – adult/nymph (**276 DD**)
- Andromeda lace bug – egg hatch (**281 DD**)
- Pine needle scale – egg hatch (**307 DD**)
- Spirea aphid – nymph / adult (**326 DD**)
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See the [Pest Predictive Calendar](#) for more information on DD and plant phenological indicators (PPI) to help you better monitor and manage these pests.

### Degree Days (as of April 21)

Aberdeen (KAPG)	147
Annapolis Naval Academy (KNAK)	213
Baltimore, MD (KBWI)	241
Bowie, MD	269
College Park (KCGS)	203
Dulles Airport (KIAD)	230
Ft. Belvoir, VA (KDA)	240
Frederick (KFDK)	194
Gaithersburg (KGAI)	213
Greater Cumberland Reg (KCBE)	175
Martinsburg, WV (KMRB)	165
Natl Arboretum/Reagan Natl (KDCA)	317
Salisbury/Ocean City (KSBY)	260
St. Mary's City (Patuxent NRB KNHK)	254
Westminster (KDMW)	260

Important Note: We are using the [Online Phenology and Degree-Day Models](#) site. Use the following information to calculate GDD for your site: Select your location from the map Model Category: All models Select Degree-day calculator Thresholds in: Fahrenheit °F Lower: 50 Upper: 95 Calculation type: simple average/growing dds Start: Jan 1

### Phenology

PLANT	PLANT STAGE (Bud with color, First bloom, Full bloom, First leaf)	LOCATION
<i>Elaeagnus umbellata</i> (autumn olive) (invasive)	First bloom	Clarksville (April 18)
<i>Prunus laurocerasus</i> (cherry laurel)	First bloom	Columbia (April 19)
<i>Viburnum prunifolium</i> (blackhaw viburnum)	First bloom	Clarksville (April 22)
<i>Viburnum rhytidophyllum</i> (leatherleaf viburnum)	First bloom	Ellicott City (April 20)

**Conferences** (CDC guidelines for Covid-19 may cause changes to the programs below.)

**Maryland Arborist Association Pesticide Recertification Program** (limited in-person and on-line program)

May 11, 2021

Location: Turf Valley, Ellicott City, MD

**More information is available at [http://www.mdarborist.com/calendar\\_day.asp?date=5/11/2021&event=315](http://www.mdarborist.com/calendar_day.asp?date=5/11/2021&event=315)**

**Pest Management Recertification Program** (limited in-person program)

June 3, 2021

**Location:** Carroll Community College, Westminster, MD

Details will be coming soon

**June On-line IPM Scout Training** (June 2, 9, 16, and 23 from 12 to 1:30 P.M.)

Registration Link: <https://mnlga.memberclicks.net/IPMScoutTraining#/Programagenda>

**Eastern Shore Procrastinators Pesticide Conference on June 8, 2021**

<https://www.eventbrite.com/e/2021-eastern-shore-procrastinators-pesticide-conference-tickets-150763609013>

Once the attendees pay via evenbrite, they will be emailed the link to the zoom conference.

**Greenhouse Program** (limited in-person program)

July 8, 2021

Location: Catocin Mountain Growers, Keymar, MD

Details will be available at a later date

**Advanced IPM Conference and Pesticide Re-Certification Session June 3, 2021**

The Advanced IPM conference we normally hold in December at the Carroll community College in Westminster of each year was pushed back to June 3, 2021. We held many Zoom re-certification sessions this winter, but we decided to keep this one intact as an in-person conference. Presently, the University will allow us to have gathering of 50 people. Carroll Community College will allow 48 people in their conference room with social distance. For now, we will be limiting the registration number to the first 48 people to sign up. This may be expanded as more people get vaccinated and the State increases the number allowed for gatherings. Recertification and registration information is posted on the [MNLGA website](#).



## New IPM Website

The new website for Extension went live this month so our urls for IPMnet have changed. To quickly get to the new site, use <https://go.umd.edu/ipmnet>. It has links to the IPM alerts and conferences etc. It's still a work in progress at the moment and more information will be added throughout the spring and summer.

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Photos are by Suzanne Klick or Stanton Gill unless stated otherwise.

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