UNIVERSITY OF MARYLAND EXTENSION

TPM/IPM Weekly Report

for Arborists, Landscape Managers & Nursery Managers

Commercial Horticulture **July 11, 2025**

In This Issue...

Integrated Pest Management for Commercial Horticulture
extension.umd.edu/ipm

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 sklick@umd.edu

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Regular Contributors:
Pest and Beneficial Insect Information: Paula Shrewsbury (Extension Specialist) and Nancy Harding, Faculty Research Assistant
Disease Information: David Clement (Extension Specialist) and Ana Fulladolsa (Plant Pathologist and Director, UMD Diagnostic Lab)
Weed of the Week: Kelly Nichols, Nathan Glenn, (UME Extension Educators), and Chuck Schuster (Retired Extension Educator)
Cultural Information: Ginny Rosenkranz (Extension Educator, Wicomico/Worcester/Somerset Counties)
Fertility Management: Andrew Ristvey (Extension Specialist, Wye Research & Education Center)
Design, Layout and Editing: Suzanne Klick (Technician, CMREC)

Sourgum (Black Gum) Scale – Armored Scale on *Nyssa sylvatica*

By: Paula Shrewsbury

Marie Rojas, IPM Consultant, found sourgum scale (a.k.a. as black gum scale), *Chionaspis nyssae*, on *Nyssa sylvatica* (Diaspididae; black gum, tupelo, sourgum and other common names) (Cornaceae) on July 9th in Montgomery County. This native scale occurs mainly in the Eastern U.S. *Nyssa sylvatica* appears to be the most common host of *C. nyssae*, although the literature states it has been found on trees from 5 other families. Parasitoids are known to attack this scale.

Underside of a Nyssa leaf with sourgum scale, *Chionaspis nyssae*. Scales are white and males have a tan teste on one side and are narrow and elongate; females have a tan teste at one end and have a roundish, oystershell shape.
Photo: Vitaly Charny, iNaturalist

Nyssa sylvatica has become more popular in the nursery and landscape industry in the last several years. Therefore, it is important to monitor and manage this scale and try to prevent it from spreading out into the landscape.

I could find little information on the biology of *C. nyssae*. It is reported to feed on the foliage and tree trunks. Based on Marie Rojas's observations in the nursery over the last few years, eggs were found under female scales in early July, egg hatch / crawler activity began toward the end of July, and egg hatch ended by mid-August. This scale is difficult to see on foliage and tree trunks, so monitor plants closely. **If you have this scale, please let us know when you start to see eggs under females (flip the waxy cover off) and crawler activity (pshrewsbury@umd.edu and sklick@umd.edu)**.

Recommendations: When crawlers are active, target crawlers with insect growth regulators (IGR) such as pyriproxyfen (ex. Distance) or buprofezin (ex. Talus) for control. When the scale is found feeding on the foliage, materials such as dinotefuran or flupyradifurone (ex. Altus, an EPA reduced risk insecticide) should work well.

Upper side of a *Nyssa* leaf with sourgum scale, *Chionaspis nyssae*, showing discoloration damage by scales feeding under the leaf. Damage appears as white spots, sometimes surrounded by a bright red discoloration on the upper side of foliage.
Photo: Vitaly Charny, iNaturalist

Monitor *Nyssa* trees closely for the armored scale, *Chionaspis nyssae*. It is found on tree trunks and foliage.
Photo: Marie Rojas, IPM Consultant

Yellow Poplar Weevil Observations

By: Paula Shrewsbury

We put out a Special IPM Alert on the native yellow poplar weevil (YPW), *Odontopus calceatus* (Coleoptera: Curculionidae) that was outbreaking on magnolias and tulip poplars and causing significant damage to the newer foliage on June 11th. Since then, we have reported numerous observations on YPW adults and their damage in nurseries and landscapes on magnolia and tulip poplars. Since the beginning of July, there have been no reports of active YPW adults; and there have been reports of trees with damage but no sign of adults anymore. It appears this generation of adults are done. I have been monitoring poplar and magnolia trees for signs of YPW larval damage – blotched leaf mines in foliage, and for eggs that are laid in the mid-vein of leaves. I have found only a few leaves with leaf mines but there were no larvae in the leaf mines. I have also found a few leaves with what looks like eggs have been oviposited in them, but I found no eggs.

Given that I have not seen much leaf mining damage by larvae or eggs on the magnolias or poplars I have looked at, I am still not sure if the YPW adults we were seeing were the adults that emerged from overwintering (spring adults), or new adults produced this year that will overwinter (summer adults). We will have to wait and keep monitoring to try and determine where the YPW life cycle is. If you find yellow poplar weevil adults, let us know (pshrewsbury@umd.edu and sklick@umd.edu). Try to include the host plant, life stage, location and date. **Please also monitor for blotch-type leaf mines caused by the larval stage of YPW and send pictures if you think you have them.** See the images so you know what to look for.

Feeding damage to tulip poplar by adult yellow poplar weevils, *Odontopus calceatus*.
Photo: P.M. Shrewsbury, UMD

Blotch-type leaf mines caused by the larvae of yellow poplar weevil (*Odontopus calceatus*). Leaf mines often start at the edge of the leaf.
Photo: Joe Boggs, OSU Extension

Hammerhead Worm

By: Suzanne Klick

Lauren Greenberger, Daybreak Farm, found two hammerhead worms in her garden this week. Lauren noted that in one instance, the worm was eating an earthworm. Hammerhead worms are invasive species that are predators of earthworms. They are also a problem because they secrete a toxin than can cause skin irriation to humans and can be harmful to pets if ingested. Do not try to kill them by cutting them up because they can regenerate from fragments. Methods of control include placing them in alcohol or in a bag and freezing them. Be sure to wear gloves to avoid coming into contact with the toxin.

Avoid coming into contact with hammerhead worms: they secrete a toxin that can cause a skin irritation.
Photo: Lauren Greenberger, Daybreak Farm

Persimmon Psyllids

By: Suzanne Klick

Marie Rojas, IPM Scout, found persimmon psyllids inside the rolled leaf margins of persimmons. These psyllids feed on Japanese, ornamental, and native persimmons. Feeding causes leaf distortion and galls. They also excrete honeydew on which sooty mold grows. Parasitic wasps and predators such as lacewings, lady beetles, syrphid fly larvae, and predaceous bugs feed on psyllids. Most often control is not necessary. Horticultural oil is a control option that will have minimal impact on beneficials.

Early instar nymphs secrete a white fluff. Look for the fringe on the edge of later instar nymphs. Feeding causes distorted foliage and also galls on leaves.
Photos: Marie Rojas, IPM Scout

Spotted Lanternfly Update – Adults observed in multiple locations

By: Paula Shrewsbury

Adult and late instar nymph activity. Since the last IPM Alert (June 27th) there have been several reports of **adult spotted lanternfly** (SLF, *Lycorma delicatula*) activity (1st adult reported on June 30th in Baltimore), but most observations indicate there are still a lot of 4th instar nymphs; and even a few 3rd instar nymphs in some locations. There have also been reports of abundant honeydew and sooty mold in locations with high numbers of late instar nymphs and adults. **Adults** have been reported in: Laytonsville; Brookville; Gaithersburg on *Quercus* Kindred Spirit; Elkridge on yellow poplar; Glen Burnie near black walnut; Washington D.C.; Takoma Park; and Baltimore City on sugar maple. **Late instar nymphs** have been reported in: Laytonsville on *Ulmus* 'Valley Forge' and *Liriodendron tulipifera*; Gaithersburg on *Quercus*; Forest Glen on Tiger eyes sumac; Potomac; College Park on River birch; Bethesda; and Rockville.

Patterns in SLF abundance in MD. Jessica Boyles (MDA) provided an update on what MDA surveys and online reports are indicating. "The only counties [in MD] we do not have confirmed sightings of SLF are - St. Mary's, and Worcester and Somerset". I asked Jessica "Within MD, do you have a sense of where the hot spots

are this year?" Her response was "Central Maryland has been a hot spot for years. So has Cumberland, Hagerstown and Frederick. Montgomery and PG are reporting more SLF than last year, but I am not sure if I would call it a hotspot yet, many are seeing only a few and for the first time. Reports are also back up in Cecil and Harford counties". Interesting patterns in SLF abundance within the state.

Abundant 4th instar and adult spotted lanternfly are now producing significant amounts of honeydew. Image shows honeydew with sooty mold on elm foliage, Ulmus 'Valley Forge' with ants foraging on the honeydew. Photo: Marie Rojas, IPM Scout

Clarification of using sticky band traps for SLF. In the June 27th IPM Alert, I included an image of a sticky band trap wrapped around the trunk of a tree with hundreds of 4th instar SLF nymphs caught on it. The purpose of the photo was to demonstrate the high densities of SLF that were present in that location. Thanks to the comment from an informed person from Blue Ridge Wildlife Center, I realized the photo could suggest sticky band traps as shown in the photo as a method to control SLF. The sticky band trap in that photo is NOT the way to use sticky band traps. Shortly after sticky band traps were recommended as a method to control SLF, it was realized that they were catching and harming and/or killing many non-target organisms ranging from birds to butterflies and more. Penn State Extension and other researchers quickly developed sticky traps that would catch SLF but exclude non-target organisms (ex. circle traps). These modified traps are ones that are recommended as a form of control for SLF. Matt Sheedy, Blue Ridge Wildlife Center, provide the below links for currently recommended sticky traps.

Recommended Products/Methods:
Circle Trap with integrated mesh (non-sticky option) Ex. Great Circle Trap or DIY https://extension.psu.edu/how-to-build-a-spotted-lanternfly-circle-trap
Bird-safe sticky band kits (e.g., from Penn State Extension guidelines) https://extension.psu.edu/how-to-create-a-wildlife-barrier-for-a-spotted-lanternfly-sticky-band-trap

If you see adult SLF, please let us know (pshrewsbury@umd.edu and sklick@umd.edu) and include the date, location, plant, and a picture if possible.

**Sticky band trap for spotted lanternfly with a wildlife barrier to prevent non-target organisms from being caught on the sticky band and being harmed and/or killed.
Photo: Penn State Extension**

**Circle trap on a tree to capture spotted lanternfly as they move up the tree. This method does not use sticky bands.
Photo: Emelie Swackhamer Penn State**

Boxwood Leafminer

By: Suzanne Klick

Marie Rojas, IPM Scout, is finding small boxwood leafminer larvae within leaves this week in Montgomery County. Boxwood leafminers go into diapause during the heat of summer and stop feeding. At this point, wait until after the larvae come out of diapause when the temperatures cool down. You will need to monitor plants for renewed feeding activity and damage. When the leafminer larvae are active again, use a systemic insecticide for control.

At this time of year, boxwood leafminers are entering a diapause period when they are inactive and do not feed. Photo: Marie Rojas, IPM Scout

Orangestriped Oakworms

By: Suzanne Klick

Marie Rojas, IPM Scout, found orangestriped oakworms feeding gregariously on oaks in a nursery container yard this week in Montgomery County. These caterpillars are often found on oak, birch, hickory, and maple. Look for skeletonization of the leaves from the feeding of the early instar caterpillars. Later on, older caterpillars will eat all but the leaf mid-rib. Parasitic wasps feed on this caterpillar and will leave mummies of the caterpillars behind. Paula Shrewsbury covered parasitic wasps of orangestriped oakworms in the August 21, 2020 Beneficial of the Week article. Look for signs of parasitic wasps and other beneficial insects to help determine if control measures are necessary. One control option is to prune out growing tips where large numbers of the caterpillars are feeding. If you do need to treat, Bt works well for early instars. Other options include spinosad (Conserve), chlorantraniliprole (Acelepryn), and cyantraniliprole (Mainspring).

Early instar orangestriped oakworm larvae feed in clusters on foliage. Photo: Marie Rojas, IPM Scout

Japanese Beetles and Green June Beetles

By: Suzanne Klick

Marie Rojas, IPM Scout, is reporting that she is finding low numbers of Japanese beetles at her various scouting locations. We have not received many reports of Japanese beetles this season. Please let us know if you are seeing heavy infestations in your area. Whether a turf area is irrigated can impact beetle population densities.

Here at the research center in Ellicott City, we have been seeing green June beetles flying around our research plots for the last few weeks. These beetle grubs can be a problem in golf courses when they feed on the roots of turf. Adults are often found feeding on overripe fruit.

Paula Shrewsbury wrote an article on scarab beetles and control options in the June 27, 2025 IPM Report.

Green June beetle adults emerging.
Photo: Suzanne Klick, UME

Japanese beetles have been feeding on the figs here at the research center.
Photo: Suzanne Klick, UME

Bagworms

By: Suzanne Klick

Elaine Menegon, Good's Tree and Lawn Care, found bagworms on cypress and a weeping cherry tree in Mt. Joy, PA on July 9. David Lantz found early instar bagworms on July 3 in Hagerstown. The size of the larvae will vary depending on your location and time of egg hatch. The smaller the larvae, the more effective the control. Control options include *Bacillus thuringiensis kurstaki*, spinosad (ex. Conserve), chlorantraniliprole (ex.Acelepryn), and tebufenozide (ex. Confirm).

Bagworms continue to be active this week.
Photo: Elaine Menegon, Good's Tree and Lawn Care

Turf Diseases on Maryland Lawns

By: David L. Clement and Geoffrey Rinehart, Maryland Extension Specialists

Our recent Maryland weather has caused many professional turf managers grief especially with irregular brown patches and dieback even on well- maintained lawns. The most likely causes are from turf disease. We started out with widespread red thread incidence this spring and have followed up with high temperatures coupled with late afternoon thunderstorms which has favored brown patch infections. Realistically, even with curative applications of fungicides the damaged cool season turf will still be slow to recover under mid-summer conditions. Your clients may be disappointed, but you can use this as an opportunity to suggest overseeding with varieties listed on the Maryland-Virginia Turfgrass Variety List (Publication TT-77).

The most common summer turf disease on cool season Maryland lawns is brown patch. On tall fescue, brown patch is most severe during warm, humid weather, especially when night temperatures exceed 68°F. Over the long-term, practices that will improve drainage such as aerifying and avoiding irrigation in the early evening to reduce the duration of leaf wetness will help. Resistant turfgrass cultivars can recover some of their vigor in the fall, but typically will be thinned and less dense without over seeding. Remember that perennial rye is very susceptible and may be killed by brown patch compared to better resistant tall fescue cultivars and the fine fescues.

Turf diseases like brown patch have been a problem this summer with the weather we have been having.
Photos: Geoffrey Rinehart, UMD

Brown patch field symptoms on residential turf maintained at higher mowing heights, appear as roughly circular patches that are brown, tan, or yellow in color and range from 6 inches to several feet in diameter. The affected leaves typically remain upright, and lesions are evident on the leaves that are tan and irregular in shape with a dark brown border. Older infections will create dead tan, or bleached areas in the turf. When the leaves are wet or humidity is high, light gray cottony growth may grow on the infected leaves. Poor soil drainage, lack of air movement, shade, cloudy weather, dew, over-watering, and overnight wetness favor increased disease severity. Brown patch is particularly severe in turf fertilized with excessive nitrogen. Avoid nitrogen rates greater than 0.25lb N/1000 sq ft when conditions are conducive to disease development. Ensure adequate amounts of potassium and phosphorus by applying these nutrients based on soil test results.

When curative chemical control is required, consider using QoI fungicides such as azoxystrobin, pyraclostrobin, penthiopyrad, or fluxapyroxad. You may still see disease symptoms for several days after application- remember that a fungicide application will not repair leaves that are already infected, but it will stop the infection from spreading further. Oftentime, full recovery doesn't occur until temperatures cool down and tall fescue growing conditions improve in September/October. For high-maintenance tall fescue lawns, ready-to-use fungicide formulations typically have performed poorly in research trials, with azoxystrobin being one of the few exceptions. Applications of azoxystrobin, fluoxastrobin, flutolanil, pyraclostrobin, or trifloxystrobin to lawns have provided acceptable control of brown patch for three to four weeks as has the use of penthiopyrad, or fluxapyroxad in several published tests under high disease pressure. QoI fungicides generally have performed best over a four-week application interval. Acceptable control sometimes has been achieved using DMI and SDHI fungicides, such as propiconazole and fluxapyroxad.

Fungicides used on a curative basis which will require higher rates with shorter intervals after an outbreak has occurred and disease pressure is high. However, curative applications cannot cause yellow, or brown leaves to become healthy again. Curative applications can simply protect uninfected tissues and new growth and are only effective if the turf is actively growing.

Remember to not rely on fungicides alone for disease control. Avoid using turfgrass varieties that are highly susceptible to disease and follow best cultural disease-management practices to reduce selection pressure on the fungus in order to prevent fungicide resistance.

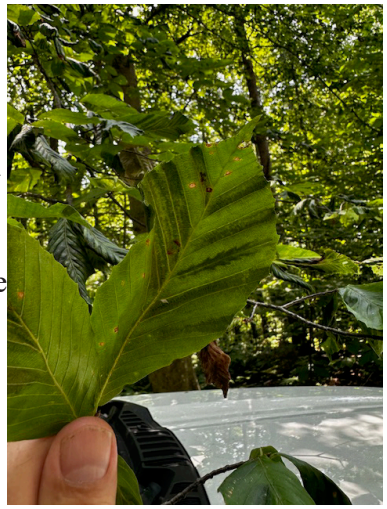
References:
Chemical Control of Turfgrass Diseases 2024 Bruce B. Clarke (Emeritus), Department of Plant Biology, Rutgers University; Paul Vincelli, Department of Plant Pathology, University of Kentucky; Paul Koch, Department of Plant Pathology, University of Wisconsin-Madison; Ming-Yi Chou, Department of Plant Biology, Rutgers University.
https://publications.ca.uky.edu/files/PPA1.pdf

Brown Patch in Turf, TurfFiles, NC State turf pages, Lee Butler Extension Coordinator Entomology & Plant Pathology, Jim Kerns, Associate Professor, Entomology and Plant Pathology.

https://www.turffiles.ncsu.edu/diseases-in-turf/brown-patch-in-turf/#:~:text=The%20turfgrass%20leaves%20must%20be,wetness%20and%20increased%20disease%20severity.

Beech Leaf Disease

Steve Nagy, Mead Tree Experts, sent in a photo of beech leaf disease. He found it in the Knoxville/Gapland area of Maryland. Please see the June 6, 2025 IPM Report for more information. Forest Pest Management continues to survey for BLD in Maryland. Additional counties are being surveyed for presence of the BLD and the nematode. Permanent survey plots have been set up across Maryland since 2019. To report symptoms of BLD, data can be entered on the "Tree Health Survey" app (search for it on your mobile device) or reported by email to fpm.mda@maryland.gov. For additional information, visit the UMD Extension Website at: https://extension.umd.edu/resource/beech-leaf-disease-maryland/



Look for the distinctive dark green and light green striping on leaves indicating beech leaf disease.
Photo: Steve Nagy, Beech Leaf Disease

Crapemyrtle Bark Scale Update

By: Paula Shrewsbury

Monitoring of crapemyrtle bark scale (CMBS), *Acanthococcus lagerstroemia*, in University Park, MD continues. In the past week, Sheena O'Donnell (UME Technician) continues to find 2nd instar nymphs and some adult female scales and male pupae. A few of the adult females had started to make eggs. We will continue to monitor and let you know when the population shifts, and you should start monitoring for females with eggs and when crawlers of the next generation become active. Sheena continues to see an abundance of natural enemies active on the crape myrtle.

Image demonstrates various life stages of crape myrtle bark scale from crawlers to mature females and ovisacs.
Photo: P. Porter, Texas A&M

Adult Redheaded Flea Beetle Damage

By: Paula Shrewsbury

T.J. Morris, Unity Landscape, reported adult redheaded flea beetle (RHFB), *Systena frontalis* (a species of leaf beetle) damage (see image) on multiple plant species at a client's property on July 2nd. The client first noticed the chewing damage on Heuchera in late May, and then it progressed on to other plant species. RHFB are native and occur in the eastern and central U.S. Adults can cause significant feeding damage to a diversity of woody and herbaceous plants. RHFB are a species of leaf beetle (Chrysomelidae) and they jump when disturbed. The beetle is small (0.2"), shiny black with a red head and the hind legs have enlarged femurs used for jumping. Yellow eggs (overwintering stage) are laid individually in the soil. The larvae are creamy white with a tan head and have 3 pairs of legs and are active in the soil where they feed on roots. The first-generation larvae occur in early spring. Life stages from multiple generations often overlap over the season.

Adult redheaded flea beetle, Systena frontalis.
Photo: Matt Bertone, NCSU

Below are links to two good resources that provide detailed, research-based information on RHFB including controls to target adult and larval stages. Chemical and biorational products, and cultural practices to reduce

populations and damage are discussed.
https://content.ces.ncsu.edu/red-headed-flea-beetle-management-in-container-nurseries

https://site.caes.uga.edu/entomologyresearch/2022/11/redheaded-flea-beetle-an-ornamental-nursery-pest/

RHFB damage on Itea showing chewing damage to the foliage. Photo: Danny Lauderdale, NCSU Extension

Slugs

By: Suzanne Klick

Dave Freeman, Oaktree Property Care, sent in a photo of a slug found in McLean, VA on July 9. With the recent rains, slugs will be more active. Look for irregular holes on foliage, slime trails, and slugs on plants, pots, and other structures.

With the recent rains, slugs will be more active. Photo: Dave Freeman, Oaktree Property Care

Lightning Strike

Mark Schlossberg, ProLawn Plus, Inc., sent in a photo of a tree damaged by a lightning strike. With the recent heavy storms, trees are being damaged by lightning, heavy rain, and high winds.

Red maple tree damaged by a lightning strke in Owings Mills.
Photo: Mark Schlossberg, ProLawn Plus, Inc.

Elm Zigzag Sawfly – Another invasive species

By: Paula Shrewsbury

The elm zigzag sawfly (EZS), *Aproceros leucopoda* (Hymenoptera: Argidae) is an invasive sawfly that attacks elm trees (*Ulmus* spp.). Last year in the June 28, 2024 IPM Alert, Marie Rojas reported two nursery locations in central Maryland with EZS damage. This past week, Marie found what looks like characteristic feeding damage from EZS on elm in a Montgomery County nursery. EZS is native to China and Japan. It was first reported in North America in 2020 in Quebec, Canada, and then in the U.S. in 2021. In addition to being found in MD, it has also been found in VA, NC, VT, NY, OH, PA, MA, and WI. Feeding damage from EZS may be minor, or in some cases elms have undergone significant defoliation.

Characteristic "zigzag" defoliation damage by young elm zigzag sawfly.
Photo: Matt Bertone, NCSU

Elm zigzag sawfly larvae are small.
Photo: Matt Bertone, NCSU

There is still a lot to learn about EZS in the U.S. Please monitor your elms, and if you see EZS damage and / or the sawflies, please let us know what date, elm species if you know it, and where you saw it, and include pictures if you can (pshrewsbury@umd.edu and sklick@umd.edu).

For more information and pictures of the damage and sawfly go to:
https://hort.extension.wisc.edu/articles/elm-zigzag-sawfly/
https://content.ces.ncsu.edu/elm-zigzag-sawfly

As elm zigzag sawfly mature, even though they are small, they can consume large amounts of foliage, defoliating entire branches or even trees if populations are high.
Photo: Kelly Oten, NCSU

Oak Flake Gall

By: Paula Shrewsbury

Marie Rojas, IPM Consultant, found oak flake galls on a few species of oak in a nursery in Gaithersburg, MD on July 8th. She describes them as "fluffy white starbursts" on the underside of the leaves. Most galls on oaks are caused by small wasps in the family Cynipidae. Each species of cynipid wasp results in its own unique gall. Oak flake gall is caused by the cynipid wasp, *Neuroterus quercusverrucarum* (syn. *N. floccosus*). Most cynipid wasp galls on oak, including oak flake gall, usually do not warrant control. For more information on oak flake gall, see the article from Ohio State Extension by Joe Boggs.

Underside of an oak leave showing the oak flake gall, caused by the cynipid wasp *Neuroterus quercusverrucarum*.
Photo: Marie Rojas, IPM Scout

Top side of an oak leave showing the oak, flake gall, caused by the cynipid wasp Neuroterus quercusverrucarum.
Photo: Marie Rojas, IPM Scout

A Boom of Oak Galls

By: Ana C. Fulladolsa, UMD Plant Diagnostic Laboratory

We recently received two oak samples with leaves covered in small galls. These are produced by wasps in the genus *Neuroterus* (family Cynipidae). Early in the season, female wasps insert their eggs into new leaf buds. Through chemical signals, the wasps manipulate plant genes in leaf cells so that they develop to form galls. A small, gall-wasp larva develops inside each gall, which changes color as the larva matures. In late summer or fall, the galls detach and fall to the ground. The mature wasps overwinter inside the fallen galls and emerge next spring.

Gall-forming wasp populations have a boom-and-bust pattern. In other words, their numbers rise and fall drastically from year to year. They tend to be found on individual trees in a landscape and are typically not considered detrimental. The boom-and-bust patterns depend on environmental factors and the presence of natural enemies.

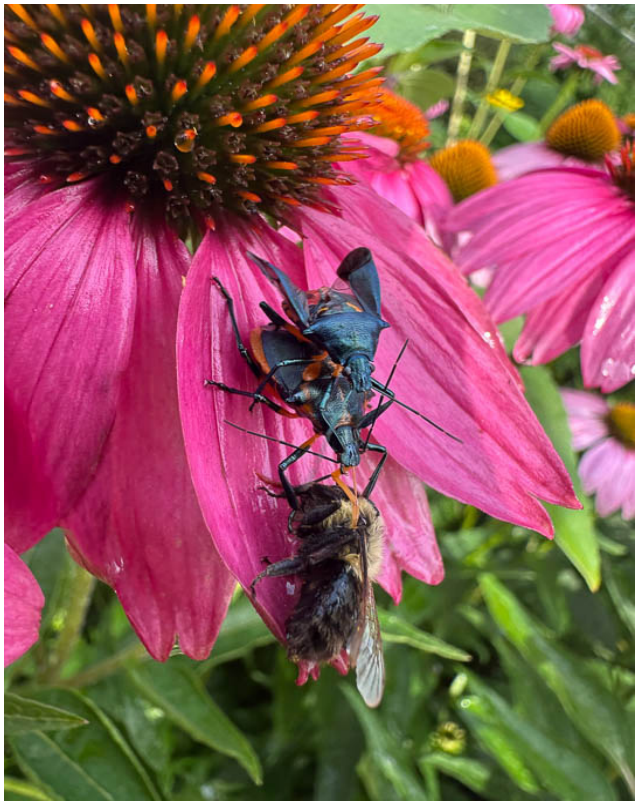
More information on common oak galls caused by *Neuroterus* wasps can be found here: https://bygl.osu.edu/index.php/node/2185.

Oak leaves with galls produced by gall-forming wasps (*Neuroterus* sp.). Photos: Ana C. Fulladolsa, UMD.

Predator Activity

Dave Freeman, Oaktree Property Care, found an orbweaver spider active in McLean, VA this week. He also found an adult Florida predatory stink bug. We have received more reports of this predator this season than we usually do. It was the Benefical of the Week article in the May 16, 2025 IPM Report.

While counting the crapemyrtle bark scale samples this week, Sheena O'Donnell and I were finding various predators including nymphs and adults of minute pirate bugs. These generalist predators are often released in greenhouses to help reduce populations of thrips. They will feed on pollen when thrips or other prey are in low numbers.

An orbweaver spider and a mating pair of Florida predatory stink bugs have caught their prey.
Photos: Dave Freeman, Oaktree Property Care


Minute pirate bugs nymphs (left) and adults (right) were active this week on crape myrtles with scale populations.
Photos: Suzanne Klick, UME

Beneficial of the Week

By: Paula Shrewsbury

Dragonflies are ancient insects and efficient predators as adults and nymphs

Dragonflies have huge eyes, powerful legs, and are great fliers, making them amazing predators. They often sit on the tip of vegetation and wait for prey to come by, and then they take flight and grab the prey with their long raptorial legs. Photo: M.J. Raupp, UMD

Dragonflies (and their cousins the damselflies) belong to the order Odonata. They are large insects that are found around areas with freshwater. The adults are terrestrial, and the nymphs are aquatic in freshwater. They are also a very ancient and successful insect group that were around before the dinosaurs. Dragonflies are in a suborder called Anisoptera. The Latin root of this name means unequal (aniso) and wing (-ptera). When you look at a dragonfly adult, the hindwings are much wider than the forewings. Also, dragonflies hold their wings straight out away from their body when at rest. Dragonflies of today descend from a very ancient group. Dragonflies that cruised the sky over 250 million years ago had wingspans of about two and half feet – yes feet not inches! I would have liked to see one of those (from a distance of course). The largest dragonfly species today is the giant darner (*Anax walsinghami*), whose body length and wingspan can both reach up to five inches. They are found in Central America and the Southwest U.S.

A dragonfly nymph collected from fresh water. Photo: Tom Murray, BugGuide (#46190)

Even at their present-day size, dragonflies are impressive predators. Dragonflies have evolved features that lead to their success as predators. For example, adults have large eyes that provide almost 360-degree vision which aid in spotting and catching prey. They are fast fliers with some larger species reaching 43 mph. One dragonfly species, the globe skimmer, *Pantala flavescens*, flies across an ocean during a migration that totals about 11,000 miles. They even catch their prey in flight. They have long legs with spines that allow them to hold their prey under their bodies, and they have very sharp, serrated mandibles to aid in tearing their prey apart. Dragonfly adults will snack on small insects like mosquitoes or craneflies, or capture and consume larger insects like bees, butterflies, flies, or even other dragonflies or damselflies. Male dragonflies are territorial and patrol the edges of ponds or streams where they are looking for food and potential mates. Any other males that enter their territory are chased away. Males will court females and mating pairs of dragonflies often fly in tandem forming what is called the "mating wheel" which appears heart-shapes. The wheel is formed when the male uses his specialized appendages to grasp the female behind the head, and the female curls the tip of her abdomen up to connect to the male's sex organs. Males sometimes continue to guard females to "keep the competition away" until she is done laying eggs, which she does in the water or on aquatic vegetation. If you have ever watched adult dragonflies and see them dipping the tip of their abdomens into the water – they are laying eggs.

Eggs hatch into nymphs (or naiads) that are aquatic living in ponds or streams and are also predacious. Some nymphs live up to 2 years. Strangely (to us anyway) nymphs obtain oxygen from the water through gills found inside their anus. Using muscular contractions, nymphs pump water in and out of their rear ends to breath. Nymphs are also excellent hunters. They capture and consume larvae of aquatic beetles, midges, biting flies and mosquitoes (Yay!), crustaceans, worms, tadpoles and even small fish. Nymphs are "sit and wait" predators. Nymphs have a hinged jaw that rapidly snaps forward (like a frog's tongue) when a prey item comes close (click here to see a video of a dragonfly nymph feeding on mosquito larvae). Nymphs usually crawl around slowly but when startled or attacked they can push out a blast flush of air from their rear end that propels them to safety (hopefully). Nymphs molt several times in the water. When they are ready to become adults, the nymphs crawl up out of the water and attach themselves to a piece of vegetation or stone. The nymphal skin splits open and the adult dragonfly emerges. Once the adult skin "hardens off" it will then go on to their terrestrial life to fly, eat, mate and reproduce.

Late instar dragonfly nymphs emerge from the water and attach to a piece of vegetation where they then molt into adults. Here is the empty shed skin left behind by the nymph.
Photo: M.J. Raupp, UMD

Some people find dragonfly adults intimidating but they are harmless to humans. Next time you see these beautiful creatures flying through the air, pay them respect. A single dragonfly can eat between 30 and a hundred mosquitoes per day. The more dragonflies there are the less mosquitoes and flies potentially around to bite us.

For more information on dragonflies go to the University of Maryland Extension HGIC website.

Weed of the Week

By: Kelly Nichols

With the rain and heat, this week's weed is certainly living up to its name! Mile-a-minute, *Persicaria perfoliata*, also called Chinese Tearthumb or Asiatic Tearthumb, is an herbaceous annual vine that grows and will quickly grow over many other plants. It has alternate, light green leaves shaped like an equilateral triangle (Figure 1). As this plant matures, its vines become woody and will turn reddish in color. The "mile-a-minute" name is derived from the fast growth rate, up to six inches per day, while the "tearthumb" name comes from the recurved barbs that will cover the underside of the leaves and/or the stem (Figure 2). It produces a small white flower that then forms a blue berry-like fruit which is attractive to birds that help spread the seeds (Figure 3). It has been noted that the seeds can float for up to seven days, allowing further distribution. Mile-a-minute can grow and cover landscapes when provided with an opportunity.

Figure 1. Mile-a-minute leaves are shaped like equilateral triangles.
Photo Credit: Rebekah D. Wallace, University of Georgia, Bugwood.org.

Control of this plant can be obtained using several techniques. Pulling or mechanical control works well when the plant is small. After removal, provide some form of ground cover to prevent other seeds from germinating. Mulching a landscape bed is effective as this plant produces a small seed will not germinate under mulch. The mile-a-minute weevil (*Rhinoncomimus latipes*) is used for biological control, as it only feeds on mile-a-minute. The weevil lays its eggs in the leaves, stems, and buds, and larvae feed until they pupate and drop into the soil. The weevil's life cycle spans approximately one month, with a few generations taking place over one growing season. The weevils can stunt the plants enough to delay or prevent seed production. The United States Department of Agriculture Animal and Plant Health Inspection Service (USDA APHIS) regulates the sale of the weevil; however, infected plants can be moved within state lines. It has shown great promise but remember to provide plant material to cover the soil to prevent other weed infestations.

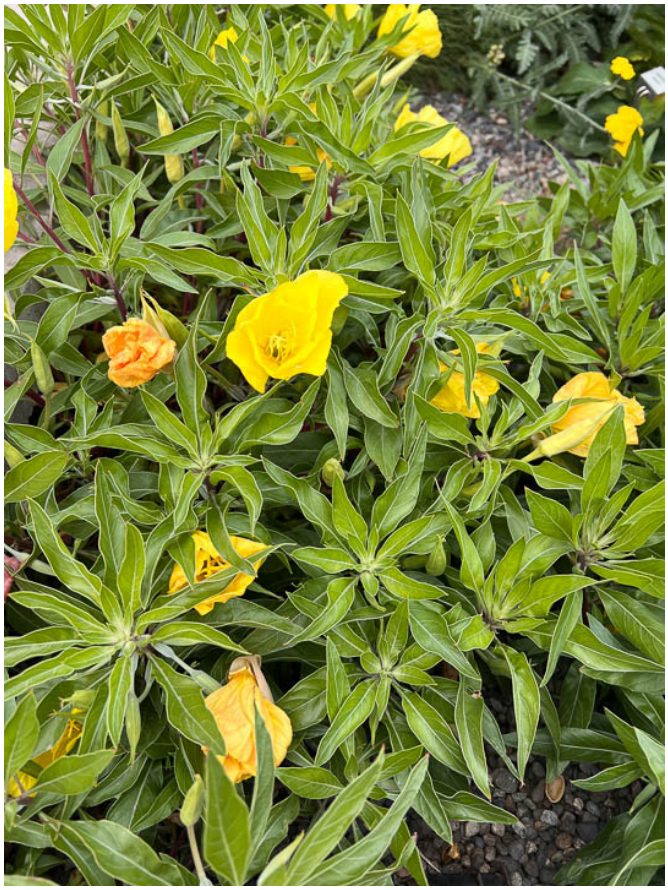
Figure 2. Barbs can be found on the stem and underside of the leaves. Photo Credit: Chuck Schuster, UME Ag Agent Emeritus.

Pre-emergent products can be used to control this weed in the landscape and will not damage the desired species of plants found in landscapes and nurseries. Pendimethalin or prodiamine can be used for selective pre-emergence suppression of mile-a-minute. Application timing is critical and needs to be early, late February or very early March. Soil temperature monitoring is very important. Post-emergent chemical control options include glyphosate, plant growth regulators (e.g. triclopyr), ammonium nonanoate, and citric acid + clove oil; they can be extremely successful. However, the weed's growth pattern is prohibitive, since it can grow over the top of landscapes and desired plants. If possible, use these products early in the season but not when mile-a-minute is growing into or over desired plants. If this plant is found in turf areas, most any synthetic post-emergent selective broadleaf weed product will control it easily.

Figure 3. Blue berry-like fruit of mile-a-minute. Photo Credit: Jaewon Kim, West Virginia University, Bugwood.org

Plant of the Week
By: Ginny Rosenkranz

Oenothera macrocarpa is also called Missouri evening primrose, a very cold hardy herbaceous perennial that thrives in full sun and medium to dry, well drained soils. They are cold tolerant in USDA zones 3-7, and are also tolerant of shallow rocky soils, drought and dry soils. The plants can reach a height of one foot and sprawling to cover1- 1 ½ feet wide. The bright yellow, slightly fragrant, flowers have 4 petals that open to spread 3-5 inches wide and bloom from late afternoon, through the night, and continue to bloom until early the next morning. All the flowers face upwards and are usually grown from the leaf axils or nodes. Each flower has 8 stamens at the center of the flower with linear anthers and a long style that has a stigma that is in a cleft creating a cross like shape. As they mature, they create winged seed pods that are 2-3 inches long and narrow. Because it is night blooming, the night flying Sphinx moth, which includes the hawk moths, hummingbird moths, and clearwing moths will pollenate the flowers and enjoy the nectar. Bees also visit the flowers. The beautiful flowers bloom from May – August even through the dryest parts of the year. The gray green leaves are attached in an alternate fashion on the stems with smooth margins and often curve upwards to the sun. Leaves are narrow, lance-shaped with white veins. The plants root system has a strong deep taproot which keeps the plant in its place and allows it to thrive in times of drought. There are no serious disease or insect problems other than root rot if the plants are planted in to wet or poorly drained soils.



***Oenethera macrocapra* is a drought tolerant plant.**
Photos: Ginny Rosenkranz, UME

Pest Predictive Calendar "Predictions"

By: Nancy Harding and Paula Shrewsbury, UMD

In the Maryland area, the accumulated growing degree days (**DD**) this week range from about **1640 DD** (Greater Cumberland) to **2305 DD** (St. Mary's City). 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.

Spotted lantern fly – first adult activity **(1112 DD)**
Green June beetle – adult emergence **(1539 DD)**
Scarlet oak slug sawfly – larva, early instar **(1544 DD)**
Pine needle scale – egg hatch / crawler (2nd gen) **(1561 DD)**
White prunicola scale – egg hatch / crawler (2nd gen) **(1637 DD)**
Obscure scale – egg hatch / crawler **(1774 DD)**
Spotted lanternfly – egg laying **(1825 DD)**
Orangestriped oakworm – egg hatch / early instar **(1917 DD)**
Magnolia scale – crawler **(1938 DD)**
Fall webworm – egg hatch / early instar (2nd gen) **(1962 DD)**
Maskell scale – egg hatch / crawler (2nd gen) **(2035 DD)**
Euonymus scale – egg hatch / crawler (2nd gen) **(2235 DD)**
Mimosa webworm – larva, early instar (2nd gen) **(2260 DD)**
Japanese maple scale – egg hatch / crawler (2nd gen) **(2508 DD)**

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 July 9, 2025)

Annapolis Naval Academy (KNAK)	1832
Baltimore, MD (KBWI)	1944
Belcamp (FS836)	1730
College Park (KCGS)	1924
Dulles Airport (KIAD)	1862
Ellicott City	1775
Ft. Belvoir, VA (KDA)	1996
Frederick (KFDK)	1766
Gaithersburg (KGAI)	1838
Greater Cumberland Reg (KCBE)	1640
Martinsburg, WV (KMRB)	1718
Millersville (MD026)	1844
Natl Arboretum/Reagan Natl (KDCA)	2181
Perry Hall (C0608)	1708
Salisbury/Ocean City (KSBY)	1853
St. Mary's City (Patuxent NRB KNHK)	2305
Westminster (KDMW)	2034

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 calculatorThresholds in: Fahrenheit °F Lower: 50 Upper: 95 Calculation type: simple average/growing dds Start: Jan 1

Conferences

July 24, 2025
MNLGA Growers Day at North Creek Nurseries
Program and Registration Information

July 30, 2025
IPM Scouts' Diagnostic Session (afternoon)
Location: CMREC, Ellicott City, MD
For more information

September 11, 2025
MNLGA Field Day
Location: Raemelton Farm, Adamstown, MD

October 29, 2025
FALCAN Truck and Trailer Safety Seminar
Location: Urbana Fire Hall, Urbana, MD

Commercial Ornamental IPM Information
http://extension.umd.edu/ipm

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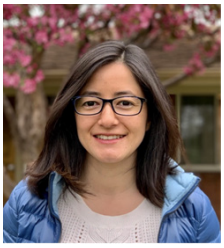

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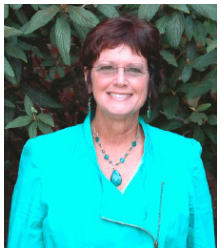

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