UNIVERSITY OF MARYLAND EXTENSION

TPM/IPM Weekly Report
for Arborists, Landscape Managers & Nursery Managers

Commercial Horticulture **October 16, 2020**

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IPMnet
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 sgill@umd.edu

Coordinator Weekly IPM Report:
Stanton Gill, Extension Specialist, IPM and Entomology for Nursery, Greenhouse and Managed Landscapes, sgill@umd.edu. 410-868-9400 (cell)

Regular Contributors:
Pest and Beneficial Insect Information: Stanton Gill and Paula Shrewsbury (Extension Specialists) and Nancy Harding, Faculty Research Assistant
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)
Fertility Management: Andrew Ristvey (Extension Specialist, Wye Research & Education Center)
Design, Layout and Editing: Suzanne Klick (Technician, CMREC)

Boxwood Moth – New Parasitoids Found in England

By: Stanton Gill

Last year, we wrote several articles on a moth in Europe that the English call the box tree moth, *Cydalima perspectalis.* The larvae of this moth decimate the foliage of boxwoods. *Cydalima perspectalis* was found in the Ontario area of Canada in 2018 and again in 2019 and created a panic among boxwood growers. The good news is that we have not received a report of this moth larvae damaging boxwood in the United States, at least, not yet.

A refereed paper was published in the *Journal of Natural History* in 2020 by Stephanie Bird et.al. in which her team reported the first identification of a tachinid fly, *Pseudoperichaeta nigolineata,* parasitizing the box tree

Box tree moth caterpillar
Photo: Ferenc Lakatos, University of Sopron, Bugwood.org

moth larvae. A wasp was also found, *Stenomalina cf. communis*, a type of chalcidoid wasp, parasitizing the box tree moth. This parasitism is great news for England since boxwood is such an important plant in their country.

Here is URL for the PDF of the research paper:
[pdf] First records of two natural enemies of box tree moth, Cydalima perspectalis (lepidoptera: crambidae), in Britain

Cottony Taxus/Camellia Scale (*Pulvinaria floccifera)*

By: Stanton Gill

Mark Schlossberg, Pro Lawn Plus, sent in these pictures of cottony Taxus/camellia scale on taxus yews in the Baltimore area this week. This year, most of the samples we received in of this Pulvinaria scale were on holly, mainly Chinese and blue hollies. There are fewer yews planted in landscapes since they are "candy food" for deer. Also, the excessive rain period of 2018 caused heavy loss of taxus yews in landscapes and nurseries in 2018 and the first part of 2019. For this reason, I suspect we receive fewer samples of *Pulvinaria floccifera* on yews. In the south where camellias are much more abundant, many just call this scale cottony camellia scale. Regardless of the common names, it is one scale, when the females produced the ovisacs back in June that was very obvious to your customers.

In October, the 2nd instar scales are preparing to overwinter on the undersides of taxus, holly and camellia foliage. They can also be found lining the stems of the infested plants. At this point, they are oval-shaped, light brown in color, and appressed to the foliage or stems. You can see them with a 10x magnifier or shoot a picture with your phone or I-Pad and blow up the picture to see them.

Control: Now is a good time to apply a 2% horticulture oil to suppress the population. This can be done again in spring when temperatures move above 50 °F for a couple of days.

Second instars are the overwintering stage of cottony Taxus/camellia scale
Photos: Mark Schlossberg, ProLawn Plus, Inc.

ASH TREES With EAB NEEDED for RESEARCH

The Shrewsbury and Gruner labs (Dept. of Entomology, UMD) are looking for:

Ash trees that are infested with emerald ash borer (EAB) but not dead yet. If you have ash trees that you will be removing, we would like to coordinate with you to gather the wood from those trees. The wood will be used to monitor for natural enemies and rear adult EAB for research towards improving EAB management.

If you think you might have ash trees that fit the descriptions above please **contact Stokes Aker** at: **saker@umd.edu**

More Fall Fungi

Here is another photo of a cool fungi showing up this fall. It is the lion's mane/bearded tooth fungus, *Hericium erinaceus*. This mushroom is common on hardwoods, especially oaks and American beech, in late summer and fall.

Lion's mane and bearded tooth fungus are several of this cool-looking mushroom's common names Photo: Ginny Rosenkranz

IPM Report Survey Coming

By: Stanton Gill

In th next week, we will post an on-line survey that helps us measure how effective our articles have been this season in helping you diagnose plant problems and improve IPM and nutrient management skills. We need this input from YOU so we can provide our University adminstrstion and legislators with a measureable impact of our outreach efforts. Your support and input is essential if we are to continue this service. Thanks.

Normal Fall Color

Todd Armstrong, The Davey Tree Expert Company, sent photos to show typical fall color and leaf drop on Arborvitae 'Green Giant' and white pine. These trees were photographed on October 14 in Timonium. Todd noted that they "are getting calls of concern about their health".

Todd also reports noticing "that maples that have select limbs with fall color, usually premature, have girdling roots. This Red maple tree shows one particular limb that is very red while the remaining portion of the tree is slowing turning red. I would assume this is a result of the restriction in vascular flow." Stresses, including the dry weather late in the summer, also contribute to the premature fall coloring on the maple.

Normal fall color on Arborvitae 'Green Giant'
Photo: Todd Armstrong, The Davey Tree Expert Company

Normal fall color and older needle drop on a white pine
Photos: Todd Armstrong, The Davey Tree Company

Stresses such as root girdling and drought can cause early fall color on red maple
Photos: Todd Armstrong, The Davey Tree Expert Company

Sycamore Lace Bug – Active up to the end

By: Stanton Gill

London plane and sycamore trees look pretty rough at this time of year after going through about 6 weeks of drought conditions. These two species are being used heavily in the landscape trade and are often planted in pretty tough growing conditions – soil and exposure-wise.

Sycamore lace bug damage on foliage late in the season; this tree is growing in full sun on the edge of our parking lot here at the research center

When a London plane or sycamore is grown in full sun in an exposed location, the sycamore lace bug becomes a rather big deal. The sycamore lace bug, *Corythucha ciliata* (Say) is a native North American insect that feeds on sycamore trees (*Platanus* spp., especially *Platanus occidentalis* L.). The bugs feed on the undersides of the leaves, initially causing a white stippling that can eventually progress into chlorotic or bronzed foliage and premature senescence of leaves. In cases of severe infestations, trees may be defoliated in late summer.

A tree that is infested year after year will be weakened with dieback ensuing. This insect is rarely a problem in natural stands of sycamore growing in flood plains and along rivers. When this plant was moved into the residential landscape, the conditions have been right for this insect to flourish. In these residential plants and commercial site plantings, without it natural predators and parasites to keep it in check, this insect is taking off.

Steve Frank, North Carolina State University Extension, published a paper on how some native insects, when moved into urban settings, act much like an invasive species from another country, where free of parasitoids, they take off.

Since the foliage will be dropping in the next 3 weeks, the adults will fly off and find a place in the leaf litter to overwinter. Next year in late spring, the adults will fly up to the new foliage and lay eggs, inserted in the undersides of the foliage. Multiple generations per season will result in stippled foliage that turns yellow and eventually brown.
If you are finding heavy damage on London plane or sycamore trees in exposed areas, please send photos along to me at Sgill@umd.edu

Nymphs and an adult of sycamore lace bug on the underside of a sycamore leaf

Lady bird beetles feed on lace bugs; this empty lady bird beetle pupal case was on an oak leaf heavily infested with oak lace bugs
Photo: Rasma Plato

Hawthorn Lace Bugs on Cotoneaster

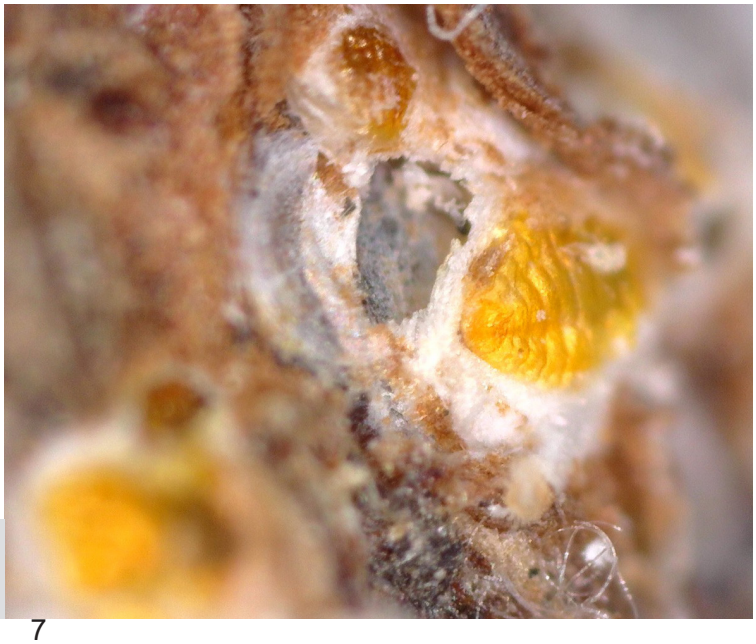
Mark Schlossberg, ProLawn Plus, Inc., found a heavy infestation of hawthorn lace bugs on cotoneaster in Owings Mills on October 15. Lace bugs cause white stippling on the upper side of the foliage and leave black fecal spots on the undersides. There are several generations a year.

Control: Monitor and treat for hawthorn lace bugs early next May. Look for signs of newly stippled leaves and nymphs on host plants growing particularly on sunny, dry sites. If infestations are high and controls are warranted use properly labeled chemicals. Treatment materials such as Acelypryn or Mainspring, acetamiprid (Tristar), or products with acephate are systemic. Non-systemic products such as horticultural oil should be directed so that the underside of foliage is thoroughly covered.

Monitor for lace bug activity early next May; treat at that time if necessary
Photos: Mark Schlossberg, ProLawn Plus, Inc.

Lady Bird Beetle Feeding on Scale Insects

Heather Zindash, IPM Scout, sent the following: "While looking at white prunicola scale on cherry laurel, I saw signs of predation on female covers. Under the scope, I saw predatory mites and was then surprised when a lady bird beetle larva entered the shot. It was hunting each cover until it found a live female and proceeded to eat it."



A hole chewed into a scale insect cover can be a sign of predation
Photo: Heather Zindash, IPM Scout


While being viewed under the scope, this lady bird beetle larva was searching for and at times found live scale insects under the covers to eat
Photos: Heather Zindash, IPM Scout

Beneficial of the Week

By: Paula Shrewsbury

Checkered beetles like to eat wood boring beetle adults and larvae

Larval stage of the predacious-checkered beetle often found under bark feeding on boring beetle larvae.
Photo: G.J. Lenhard, LSU; ForestryImages.org

Checkered or Clerid beetles are in the family Cleridae and have a worldwide distribution with over 3,500 species with about 500 species in North America. Checkered beetles can range in size from 3 – 24 mm and are elongate and somewhat flattened in shape, have short bristly hairs, and often brightly colored. Many species are predacious as adults and larvae. Checkered beetles live in a variety of habitats and have diverse feeding preferences. The two major groups of checkered beetles are the "flower visitors" and "tree living species". "Flower visitors" hang out on flowers (surprise) and feed on pollen and insects that visit flowers. The "tree living species" of checkered beetles are associated with trees where they forage for their prey above and below the bark. The most common food of these checkered beetles are bark beetle and other wood boring beetle larvae and adults. Checkered beetles use pheromones (chemicals used in communication) given off by many wood boring beetles to help them locate their prey. Unfortunately, we have enough bark beetles and other wood boring beetles (ex. emerald ash borer) in our trees to keep predacious-checkered beetles well fed for a long time! Adult checkered beetles tend to feed on adult boring beetles above and below the bark, hence their flattened shaped so they "fit" under the bark. Copulation between males and

females takes place while females are feeding. Females need lots of energy to produce and develop her eggs. Females of checkered beetles lay their eggs under the bark of trees. Checkered beetles may take anywhere from 1 to 3 years to complete one generation depending on beetle species, prey availability, and temperature. The larvae are predaceous and forage in the galleries of wood boring insects where they feed on bark beetle and other beetle larvae. Some checkered beetles are very voracious feeders, can consume several times their body weight in a day, and are often key players in biological control of wood boring beetles. Since many adult checkered beetles feed on pollen, planting sunflowers and water lilies among other flowering plants support checkered beetles.

Adult checkered beetle feeding on a bark beetle. Keep that biological control going!
Photo: G. Lenhard, LSU, Bugwood.org

Adult checkered beetle, *Enoclerus ichneumoneus*, foraging on the bark of a tree.
Photo: Bonnie Ott, MD Biodiversity Project

Weed of the Week

By: Chuck Schuster

With recent rains, some weeds are coming back to life and moving into reproductive mode. Not that they had died, but they were slow in growth. Several weeds are noticeable recently with the increase in soil moisture.

A native plant, pokeweed, *Phytolacca Americana*, is very noticeable currently with its purple berries. It is a wonderful plant for creating dyes, but can be unsightly in landscapes and nurseries. This perennial weed is found throughout the eastern United States in many areas that are fertile, have moist but not saturated soils, and areas that are not compacted. Pokeweed has many common names; pokeberry is one often used. It can grow

to heights of nearly ten feet if allowed. It produces a large deep taproot that can be three inches or more in diameter and is white in color. The stems are most often hollow, smooth, and reddish to deep purple in color. When allowed to grow to its full potential, the stems can reach diameters of four inches. The stems are branched on the upper portion of the plant. The leaves are large, alternately arranged on the stem, and smooth. They have an elliptical shape and a shiny surface. Leaves can be longer than fifteen inches and are usually about one third as wide as they are long. All plant parts are toxic, including the roots and berries. All parts of this plant contain saponines and oxalates which are toxic when ingested with improper preparation. Birds seem to be able to ingest this plant without ill effects. Use caution when working with this plant. This plant reproduces only by way of seeds. Remove fruit to stop the spread. Often birds move the seeds to locations where it previously did not exist. It can occasionally be found in vegetable seed.

Control options in open areas include 2,4D, Dicamba, and Garlon 4 are all selective products that can be used to control Pokeweed. **Caution with these products needs to be considered as they can potentially drift or volatilize and damage desired plant species.** Prizefighter and Avenger can be used to control this plant when the plant is immature. Glyphosate can be used also but is non selective and can damage any plant material it comes in contact with, but valorization is not an issue as with other products. Be aware that exposed roots and suckers of desired plants can uptake these products and cause damage.

Pokeweed is still being found in landscapes and nurseries this week
Photos: Chuck Schuster

Plant of the Week

By: Ginny Rosenkranz

Ilex crenata 'Chesapeake' or Chesapeake Japanese holly is an evergreen shrub that grows in a dense pyramidal form 6-7 feet tall and 4 feet wide. The glossy, convex, dark green, half-inch leaves grow in an alternate fashion on green to gray-brown stems. All hollies are dioecious, with male plants carrying only fragrant male flowers with stamens and pollen. The female plants are covered with fragrant female flowers in June that mature into dark blue to black berries around September and stay on the plants until the spring. The leaves are often so dense that the berries are often almost hidden, but the native birds have no problem finding them for a food source. *Ilex crenata* 'Chesapeake' is cold hardy from USDA zones 5-9 and thrives in full sun to partial shade, and moist but well drained soils.

Ilex crenata 'Chesapeake' growing in the landscape
Photo: Ginny Rosenkranz

They can be used as foundation plants, in a hedge or screen, or as a specimen. Once a year, they can be trimmed or sheared to create a soft or a sharply defined plant or hedge. Pests include spider mites, and if the soil is not well drained, black knot of the roots can be problematic.

Close-up of the glossy green foliage of *Ilex crenata* 'Chesapeake' Photo: Ginny Rosenkranz

Degree Days (as of October 14)

Aberdeen (KAPG)	3427
Annapolis Naval Academy (KNAK)	3914
Baltimore, MD (KBWI)	3997
Bowie, MD	4084
College Park (KCGS)	3686
Dulles Airport (KIAD)	3786
Frederick (KFDK)	3715
Ft. Belvoir, VA (KDA)	3922
Gaithersburg (KGAI)	3589
Greater Cumberland Reg (KCBE)	3209
Martinsburg, WV (KMRB)	3422
Natl Arboretum/Reagan Natl (KDCA)	4340
Salisbury/Ocean City (KSBY)	4021
St. Mary's City (Patuxent NRB KNHK)	4231
Westminster (KDMW)	3980

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

New Natural Area Management Course Designed to Expand Green Industry Professional Services

COLLEGE PARK -- The University of Maryland Extension (UME) is offering a webinar series to provide education on land care practices for small-scale natural area management. The webinar series, which will take place from 7 to 8:30 p.m. over four Thursdays beginning on October 22 through November 12, will focus on natural area management services including wildlife habitat enhancement, forestry practices, invasive plant control, tree planting, tree management, trail development, and more. This project is funded by the Harry R. Hughes Center for Agro Ecology and part of The Woods In Your Backyard partnership, composed of UME, Penn State Extension, VA Cooperative Extension, the VA Dept. of Forestry, and the Alliance for the Chesapeake Bay.

"This project began as one that focused on Maryland and Virginia but has since expanded to partners in Pennsylvania. This is a testament to the importance of incorporating forestry practices in areas of small tract woodlands and natural areas previously not maintained," said Dr. Kate Everts, director of the Harry R. Hughes Center for Agro-Ecology and the Wye Research and Education Center.

"This series was developed with green industry professionals in mind, and those looking to expand services to offer natural area enhancement, but it is also appropriate for landowners and anyone with an interest in environmentally-sustainable management practices," said Jonathan Kays, Forestry Specialist with UME.

"Whether you are a landowner looking to create recreational opportunities on your wooded property, or a landscaper looking to incorporate forestry practices into your suite of services, a wide audience can benefit from this upcoming webinar series," said Everts.

The course series includes four online classes, with a complementary resource manual and specialized checklist tool to help green industry professionals determine which enhancement practices are suitable for a given property or site depending on the landowner's goals. The four class topics include:

Oct. 22 - Expanding Your Business: Land Care Practices on Small Acreage Properties
Oct. 29 - Land Care Practices for Woodland Health
Nov. 5 - Land Care Practices for Woodland Health (continued)
Nov. 12 - Introduction to Woodland Health Assessment and Incorporating Woodland **Health** Practices

The cost for the series is $35 and includes the Woodland Health Practices Handbook, the Woodland Health Assessment Checklist and Management Actions, and two Woody Plant Identification Guides. For an additional $20, participants can also receive a copy of the original "Woods In Your Backyard" book (normally $29 plus shipping).

To register for the webinar series, go to https://go.umd.edu/NaturalAreasServices. For more information on UME's Woodland Stewardship Education Program, go to https://extension.umd.edu/woodland.

Urban Tree Summit - December 2, 2020 (On-line Event)

Presented by Montgomery Parks, Montgomery County, MD and Casey Trees, Washington D.C.
Registration: https://www.eventbrite.com/e/montgomery-parks-and-casey-trees-tickets-121720670803?aff=ebdssbonlinesearch
Presentations will focus on the health and welfare of trees in our increasingly developed landscapes. Learn from some of the country's leading experts about innovative efforts to plant, protect and preserve trees in urban and suburban settings. We encourage all arborists, landscape industry and environmental/green industry professionals, engineers, designers, housing developers, and interested citizens to take advantage of this opportunity to learn new techniques and concepts on what can be done to ensure the survival of trees in our built environment

2021 Virtual Advanced Landscape IPM PHC Short Course

This is a recertification short course for arborists, landscape managers, IPM consultants, professional gardeners, and others responsible for urban plant management.

Dates: Tuesday, Wednesday, and Thursday; January 5, 6 and 7 AND January 12, 13, and 14, 2021 (This is one course, so you can NOT register for individual days. Re-certification credits are based on attendance all six days.). Lecture times are 7:45 am – 11:00 am

Location: This is a **VIRTUAL** (online) short course offered by the Department of Entomology, University of Maryland. Attendees must have a computer with video and audio capabilities to participate.

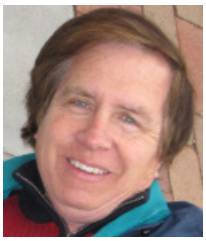
Contact: Amy Yaich, Admin. Assist. II, 301-405-3911, umdentomology@umd.edu

Registration Information: https://landscapeipmphc.weebly.com/

Late 2020 and 2021 Conferences

There will be a mix of in-person and virtual pesticide recertifications conferences over the winter. We will include information in future reports or send out as a separate email.

CONTRIBUTORS:



Stanton Gill
Extension Specialist
sgill@umd.edu
410-868-9400 (cell)

Paula Shrewsbury
Extension Specialist
pshrewsb@umd.edu

Karen Rane
Plant Pathologist
rane@umd.edu

Chuck Schuster
Retired, Extension Educator
cfs@umd.edu

David Clement
Plant Pathologist
clement@umd.edu

Andrew Ristvey
Extension Specialist
aristvey@umd.edu

Ginny Rosenkranz
Extension Educator
rosnkrnz@umd.edu

Nancy Harding
Faculty Research
Assistant

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