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Yellow-Bellied Sapsucker

Yellow-bellied sapsuckers are attacking Illinois trees at this time. The do so during both spring and fall migrations through the state. These woodpeckers typically fly south through Illinois from about mid-September through October, and they fly back north in the spring from early April through mid-May. They typically peck one-quarter inch diameter holes in vertical or horizontal rows in the trunk and larger branches. They then feed on the sap as it runs out of the holes. They also feed on insects that are attracted to the sap, but much of their diet consists of tree sap. The starling-sized black-and-white birds typically feed in the predawn hours, so their hammering on the tree is not usually noticed. Males have red areas on top of the head and on the throat; females have almost no red. A male is pictured.

In Illinois, these holes are unlikely to damage the health of the tree because the birds are in the state for only a short time. In the far southern United States as well as the far northern United States and southern Canada, where the birds spend the winter and summer, individual trees may be killed from continual pecking and feeding. Trees most often attacked in Illinois are Scotch pine, Austrian pine, and white-barked birches, although many other species are attacked occasionally. Large amounts of sap may run out of the holes made in pine trees, congealing and turning white on the trunk. Although this looks impressive, it appears to have little or no effect on tree health.

Because there is no apparent effect on tree health in Illinois, a viable option is to do nothing. If you want to protect individual trees while the birds are flying through, wrap tree wrap around attacked trunks. Remove the wrap when the migration time has passed; otherwise, moisture underneath the wrap may promote disease.

Inflatable owls or snakes may also be effective, as will lengths of garden hose that resemble snakes. For the owls and snakes to be effective, they must be moved almost daily. It is thought that the same bird attacks the same tree each year as it migrates through the area. Thus, a bird watching a tree notices that the owls or snakes haven't moved for several days and concludes they must be dead. The association of individual birds and specific trees also explains why only certain trees are attacked while nearby trees of the same species are unharmed. Remember that yellow-bellied sapsuckers are protected by state and federal laws as well as international treaty, making it illegal to harm or kill the birds. (*Phil Nixon*)

European Pine Sawfly

European pine sawfly will have hatched in southern and central Illinois. They are

likely to hatch in northern Illinois in about a week. The larvae appear similar to green caterpillars with dark green stripes and large black heads, growing to about one inch long. They are not true caterpillars; they have more than five pairs of prolegs and develop into wasp-like adults. The larvae feed in groups near the tips of branches and lie along the needles. When disturbed, they raise their heads and abdomens in unison which serves to scare predatory birds. They feed primarily on Scotch and mugo pines.

The larvae feed on the outer portions of the needles, leaving a brown core that curls and falls off of the branch. Although they strip all of the foliage off of branches, the branches are unlikely to die. The reason is that the larvae are feeding on the second and third year needles. They drop to the ground to pupate at about the same time that new needles are emerging from the developed candles. These first year needles carry on photosynthesis and food production for the branch, keeping it healthy. With only one generation per year, those needles will not be fed upon until the following spring. However, damaged branches will be bare except for a puff of first year needles at the tip, making the tree less aesthetically pleasing.

The larvae drop to the ground and burrow into the duff. They form oblong, tan cocoons in which they pupate. They emerge as one-half inch, black, wasp-like adults. After mating, the female sawfly uses her saw-like ovipositor to make longitudinal slices in the needles where she inserts her eggs. Usually about six eggs are laid per needle with several needles attacked per shoot. Attacked needles have a series of small, yellowish spots along them where the eggs have been laid. These eggs hatch into larvae in spring.

Control can frequently be achieved through hand-picking. Because the larvae feed in groups and usually only a few shoots per tree are attacked, it may be easiest to pick off the larvae or smash them on the foliage. Sprays of acephate (Orthene), acetamiprid (TriStar), azadirachtin (Azatin), carbaryl (Sevin), indoxacarb (Provaunt), or spinosad (Conserve) are effective. Because these are not caterpillars, Bacillus thurgiensis kurstaki does not provide effective control. (*Phil Nixon*)

Impatiens Downy Mildew

Impatiens Downy Mildew (IDM) continues to threaten one of the most popular shade-tolerant bedding plants in American landscapes. This disease is caused by a fungal-like pathogen, *Plasmopara obducens*, and only infects garden impatiens (*Impatiens walleriana*). New Guinea Impatiens (*Impatiens* 'New Guinea') and related hybrids have a high resistance to the disease. This pathogen is a major threat because it is aggressive and has the ability overwinter in the soils of areas previously infected by the disease. The ability to overwinter in the landscape, allows for severe outbreaks and infections to occur, even when growers provide clean disease free plants.

Scouting and early detection is critical with this disease. Look for the following symptoms:

- Initial symptoms are subtle and start as light-green yellowing or stippling of leaves.

- Infected leaves may curl downward.
- A white downy-like growth may be visible on the undersides of infected leaves.
- Infected leaves eventually drop leaving a bare stem.
- Under cool wet conditions, infected stems may collapse

If you suspect that your impatiens may be infected with IDM, it is important that you remove and destroy infected plants as soon as possible. Bag the infected material, including any fallen leaves or blossoms, as well as any of the nearby Impatiens (they may be infected too), and remove from the site. Composting the diseased material is not recommended. The pathogen produces structures capable of overwintering in the Midwest. Composting may not completely destroy the pathogen. Avoid replanting a previously infected location with susceptible impatiens.

If you have struggled with this disease in years past, consider planting other shade tolerant species. Michigan State recently published a fact sheet titled, *Alternatives to Impatiens.* If planting impatiens this year, choose open areas. Keep a careful watch on impatiens to catch this disease in the early stages and remove infected plants immediately! Fungicides can provide some protection when applied preventatively on an appropriate schedule with a rotation of active ingredients. However, homeowners have fewer fungicide options when compared to commercial applicators and may not be able to protect impatiens for the entire season. Therefore, we do not recommend that homeowners rely on fungicides for control of IDM.
(*Stephanie Porter and Travis Cleveland*)

Bright Orange Tree Bark

Last week, after several days of cool temperatures and rainy weather, I observed several trees with a bright orange color to their bark. A few homeowners, who also witnessed similar symptoms, phoned the U of I Plant Clinic with their concerns. From a distance, the trees appeared to have been used as paintball targets. Upon closer inspection, the cause appeared to be somewhat "slimy" in nature. Affected areas also appeared to be associated with sap flowing from plant injuries such as Yellow Bellied Sapsucker damage.(See Phil Nixon's Yellow Bellied Sapsucker article in this newsletter.)

Several trees species, such as maple, birch, dogwood, elm, walnut, and yellowwood, are known to "bleed" sap from wounds during spring months. The sap exuding from these bleeding trees have a high sugar content and can be colonized by many species of bacteria, yeast and fungi. Several resources, including Cornell University and University of Arkansas, have identified orange organisms similar to the one that I observed as *Cryptococcus macerans*, a basidiomycete yeast. The bright orange coloration results from the production and storage of carotene within the yeast cells. Under cool, wet conditions, this yeast can develop and result in a rather striking appearance on affected trees. I witnessed this orange, colonized yeast on sap occurring on Paper birch and American hophornbeam, while others have reported it to occur on Dogwoods and Muscadine grapes. The damage is mostly cosmetic and does not warrant any control measures. Wrapping the

wounded areas has no benefit and is not advised. The problem should correct itself as the sap flow slows and the wounds begin to heal in the late spring to early summer. Until then, enjoy the bright colorful display nature has provided. (*Travis Cleveland*)

A Good Year for Dandelions!

I've noticed quite a few lawns lately that are more yellow than green. The cool temperatures we've experienced this spring and the wetter conditions have certainly been favorable for the growth of dandelions *(Taraxacum officinale)*. However, this cool-season perennial tolerates many cultural conditions and soil types and can be found in most lawns.

Currently, the flowers are the most noticeable part of the plant. They are most abundant in the spring but can appear year around if conditions are favorable. They are yellow and up to 2-in. in diameter. They are borne singly on hollow, smooth stalks that can grow up to 20 in. tall. Within a few days the flowers become round, grayish-white puffballs of wind-dispersed seeds. In fact another name for this weed is blow-ball. The flowers can be attractive, when not in your own lawn of course. Children will pick them by the handfuls yet they don't make a very good cut flower due to their quick transition into seed heads. Currently, my family waits for my daughter's filled vase on the kitchen table to develop seeds. Hey, it's a teachable moment. My kids have been warned about blowing the puff balls around the house (another teachable moment I'd like to avoid).

Dandelion forms a rosette of leaves which are narrow and deeply lobed. The leaves grow 2 to 10 in. long and up to 2½ in. wide, staying green year around. The lobes are jagged and point back toward the leaf base. A notable look-a-like species is shepherd's-purse which develops narrower leaves and is a winter annual. Chicory is similar but the lobes do not always point toward the leaf base. In addition, dandelion's leaves, flower stalks, and taproot exude a milky juice when cut.

Dandelion has a long, sturdy taproot. In fact, you can cut the taproot in half and count the rings to learn the plant's age. This activity can keep bored children entertained on those long summer days for minutes I'm sure. Blowing the seeds may provide longer periods of entertainment. Of course this weed spreads by seeds and broken taproot pieces. Preemergent herbicides such as isoxaben (Gallery) can be effective on preventing new plants. Postemergent herbicides that are systemic can move down to the roots to control dandelion fairly effectively. Some examples for use in lawns include 2,4-D, dicamba, triclopyr, MCPP, MCPA, flurasulam, carfentrazone, mesotrione, and quinclorac. Various combination products are available as well and can be useful in controlling additional weed species. Apply postemergence herbicides during periods of active growth in mid spring to early summer and/or mid to late autumn; preemergence herbicides should be applied before seed germination. If you wish to use ingredients from a natural source rather than traditional synthetic chemicals, a good one to try on dandelion is one that contains the active ingredient Iron HEDTA (FeHEDTA) (Ortho

Elementals Lawn Weed Killer and others). For additional information regarding other chemical weed controls or other weeds, see the *2010 Commercial Landscape and Turfgrass Pest Management Handbook*.

Be sure to read, understand, and follow the label directions for proper use of these chemicals. If mishandled or misapplied, these herbicides may damage or kill many desirable ornamental or edible plants in the landscape or nearby garden. Check the label for specific guidance on where the product can or cannot be applied and for rain-free period (rain-fast) information.

With persistence, dandelions can be controlled without chemicals. The roots may be dug up and dandelion forks are great for this. Be sure to remove as much of the root as possible. Remaining root pieces can send up new leaves. Repeated digging can be used to eventually deplete the plant's food reserves.

Dandelions and other weeds have a difficult time growing in healthy, dense turf. Achieve a lush lawn by using proper cultural practices. Mow often to remove seed heads before seed maturation. However, mowing higher can shade out weeds such as dandelion. For additional information regarding using cultural practices to control and prevent weeds in home lawns, see the *Pest Management for the Home Landscape* handbook. Both handbooks mentioned in this article are available for sale at https://pubsplus.illinois.edu.

And if you can't beat them, eat them! The young leaves are delicious in salads and rich in vitamin A. Just make sure they haven't been sprayed with weed killer first! My family ate dandelion greens instead of lettuce this spring and never knew the difference. According to my Peterson Field Guide on *Edible Wild Plants*, the flowers are excellent dipped in batter and fried, but then again most things dipped in batter and then fried are excellent in my opinion. Alternatively, you can mix the blossoms with a lot of sugar and some other key ingredients to make wine. Why again don't people like dandelions? (*Michelle Wiesbrook*)

Illinois Invasive Species Awareness Month

Did you know that May is Invasive Species Awareness Month (ISAM)? ISAM provides opportunities for all citizens of Illinois to participate in invasive species awareness events around the state. Events and programs are being held across the state and everyone is encouraged to attend and learn more about invasive species (check out the ISAM website). During May, you'll be able to volunteer to help remove invasive species, join a nature hike to see invasive species firsthand, or attend presentations to learn more about what they can to do help fight these threats. Over 73 invasive species events have already been scheduled across the state during May (and early June).

Invasive species come in many forms, from plants and animals, to insects and diseases. Invasive species can greatly harm the ecology and economy of Illinois. Invasive species can reduce productivity of agricultural lands, impact diversity of natural systems, reduce

wildlife habitat, and limit recreational activities. Illinois has its share of invasive species problems. Two of the most recognizable are Asian carp and emerald ash borer, but we also face many challenges with invasive plants such as garlic mustard, Oriental bittersweet, kudzu, bush honeysuckle, and leafy spurge.

Organizations, agencies, and groups from across Illinois are teaming up to make this Invasive Species Awareness Month a huge success. Central to this year's events is the theme that each person in Illinois can make a significant difference in battling invasive species, whether it is through cleaning water craft, volunteering at workdays, choosing to purchase species that are not considered invasive, knowing proper disposal methods for bait and unwanted aquarium pets or plants, or controlling invasive species on their lands. (*Kelly Estes*)

2012 First Detector Wrap Up

The 2012 First Detector Training Workshops are officially in the books. We received a tremendous amount of interest in this inaugural workshop series. Many of the workshops were filled to capacity and the enthusiasm at all seven events was terrific.

For those that might be unaware of this program, the first detector workshops this past winter focused on invasive tree pests. The goal was to provide in depth training sessions on emerging and current *invasive* insects, pathogens, and plants. Training in 2013 focused on emerald ash borer, thousand cankers disease, and three invasive plants – giant hogweed, Japanese stiltgrass, oriental bittersweet, mile a minute weed, princesstree, and Japanese chaff flower (depending on the location of the event). In addition to presentations by state experts covering identification, biology, hosts, sampling, management, look-a-likes, and regulation on each pest, participants also completed hands-on activities to put their new knowledge to work.

Statewide, 324 individuals completed first detector training in 2012. At each workshop, participants were asked to complete an evaluation form which consisted of a few questions to help us plan for future workshops as well as asking what their profession/interest was to help classify our audience. Participants were also asked to rate their degree of understanding of the presented material before and after training using a 1 to 5 scale (1= very little, 5 = a lot). About 70% of participants returned evaluation summaries.

Participants:

Number*	Profession/Interest
82	Master Gardener
36	Master Naturalist
63	Forester/Arborist
15	Lawn Care/Landscape/Garden Center/Nursery
12	Conservationist
29	City/County Employee
13	Extension/Government
16	Homeowner
4	Business Owner (Tree Treatment/Consulting)
1	Journalist
5	Non Profit

Degree of Understanding/Knowledge Gained:

Participants were asked to rate their degree of understanding of the presented material before and after training using a 1 to 5 scale (1 = very little, 5 = a lot)

Emerald Ash Borer	Before Training (Avg.)	After Training (Avg.)	% Change in Knowledge
Identification/ Detection	3.27	4.46	+ 36.3%
Life cycle/ Biology	2.96	4.27	+ 44.2%
Hosts	3.36	4.40	+ 30.1%
Sampling	2.79	4.24	+ 52.1%
Management	2.93	4.31	+ 46.8%
Look-A-Likes	2.70	4.17	+ 54.4%
Regulation	2.81	4.15	+ 47.9%

Thousand Cankers Disease	Before Training (Avg.)	After Training (Avg.)	% Change in Knowledge
Identification/ Detection	1.62	4.01	+ 147.6%
Life cycle/ Biology	1.59	3.98	+ 150.7%
Hosts	1.84	4.16	+ 126.5%
Sampling	1.61	3.96	+ 145.7%
Management	1.54	3.87	+ 152.9%
Look-A-Likes	1.65	3.84	+ 132.8%
Regulation	1.51	3.91	+ 158.3%

Invasive Plants	Before Training (Average)	After Training (Average)	% Change in Knowledge
General knowledge	2.44	4.17	+ 71.3%

Secondary Audience:

Participants were asked to indicate the number of people they encounter in regards to tree care. This number could be utilized to project how information learned during the first detector training might be disseminated and how many people this information may potentially reach.

Number of Participants	**Potential Secondary Audience**
99	0 to 50
40	51 to 100
34	101 to 500
16	501 to 1000
10	1000 +

Based on the information provided, information gained during the First Detector Program, a secondary audience of as many as **51,950** people could be reached.

Needless to say, we are very excited about the future of this program. We are in the planning stages for the 2014 workshops. Stay tuned for updates about where they will be and what we will be covering. We look forward to seeing you there! (*Kelly Estes and Stephanie Porter*)