# Horticultural Inspection Society
# Central States Chapter

***Making Professionalism a Part of Every Effort***

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**MEMBER STATES**

Illinois,
Indiana,
Iowa,
Kansas,
Kentucky,
Michigan,
Minnesota,
Missouri,
Nebraska,
North Dakota,
Ohio,
South Dakota,
Wisconsin

## *PRESIDENTS MESSAGE*


*Scott Kinzie - HIS-Central States Chapter President*
*Indiana Dept. of Natural Resources: Division Entomology and Plant Pathology*


First of all, many thanks to all who attended last year's HIS Meeting in Indianapolis. We had a great turn out: 35 people from 10 states listened to some excellent presentations, and even learned from each other during the three day meeting. Only Ohio, Illinois, and South Dakota did not participate. We had great discussions, and came out feeling more prepared, more educated, and maybe even more excited about the upcoming inspection season.

The field trip was, I hope, a unique trip for all. After a brief video of how the Southside Landfill uses its methane gas to heat and provide energy to a neighboring greenhouse, we then took a bus tour around the landfill, and then onto Crossroads Greenhouse. We saw 6 acres of poinsettias, all growing from the energy used by methane gas wells at the landfill.

Our business meeting was productive too. One of our discussions focused on communication. We need to better communicate between states - and one of the best ways is by using our list server. Just in the last week of April, many of us were communicating information on the Hosta Virus, Japanese Maple Scale and other pests. A lot of this information is critical in how we do our jobs as state regulators. However, only paid members of HIS-Central Chapter are allowed to be on the list server. Every state should consider getting all inspectors to become members. $15.00 per year is a very low fee, considering all our Chapter can do - and one big benefit is the list server. Communication and involvement go hand in hand and sharing information is so important. As professionals, we owe it to ourselves and the plant industry to be knowledgeable in all that we do.

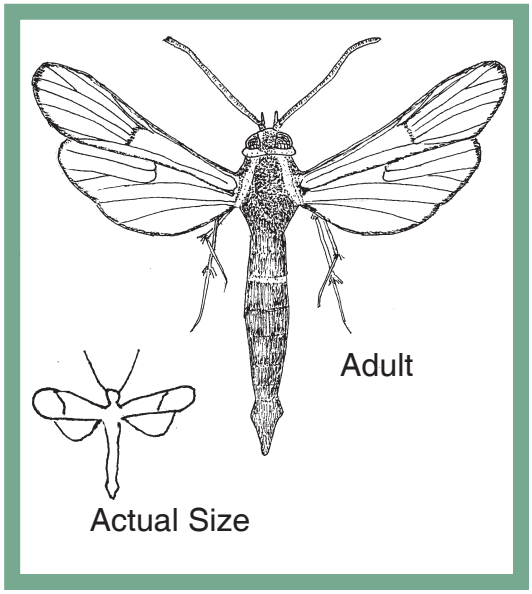
This year's meeting will be in Nebraska City, the week of October 17th. I hope we have even a better turnout. Bill McAdams said it so well at last year's meeting - We all learn from each other, everyone has their own expertise - and sharing that knowledge is what HIS is all about.

# LESSER PEACHTREE BORER, *SYNANTHEDON PICTIPES* (GROTE & ROBINSON) ORDER LEPIDOPTERA, FAMILY SESIIDAE

*John R. Crouch – Regional Entomologist,*
*Iowa Department of Agriculture and Land Stewardship.*

**Distribution:**
This moth can be found in the eastern half of Canada and the United States westward to Minnesota in the north and eastern Texas in the south.

Hosts:
An important pest of peach, *Pyrus* and other cultivated stone fruits, it also attacks ornamentals such as purple-leaf plum *Prunus x cistena,* and flowering almond, *Prunus glanulosa.*

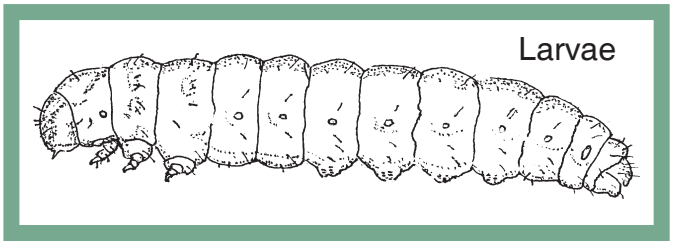



**Description:**
The adult lesser peachtree borer is a black clearwing moth with a metallic sheen. The lesser peach tree borer can be distinguished from the peachtree borer, Synanthedon exitiosa by its smaller size and lack of the transparent amber sheen to the wings. The male moth has a white spot on the frons, adjacent to the eye. The wingspan is 18-25 millimeters.

**Lifecycle:**
The adults emerge in July. They are active from 9 A.M. to 12:00 P.M.. The eggs are laid in the bark, usually near wounds on vigorous trees. They are often associated with black knot galls, tree crotches or injured limbs. Eggs are deposited singly, but several females may lay large numbers of eggs in and around a wound. Eggs hatch in approximately 14 to 20 days. The larvae tunnel under the bark and into the phloem. They overwinter under the bark, pupate in June and emerge as adults in July. One generation occurs per year.

**Inspection Tips:**
Attacks are indicated by an accumulation of red frass, usually near wounds, branch crotches, pruning scars, mechanical damage and winter injury. Cankers are also infested. Larvae feed on living tissue at the edge of these injuries. Feeding often results suckering and adventitious growth and the deposit of amber-like gumosis on the outer bark. Empty pupal cases can be found protruding out of the infested limbs after adults emerge.

**Control:**
Cultural practices that minimize mechanical injury from cultivation, mowing and harvest reduce incidence of this borer. Diseases such as canker and black knot result in roughned areas of bark and create infestation sites. Control of these diseases can reduce incidence of attack. Pheremone traps are available and can assist in determining timing of insecticide applications to the trunk and lower branches to target adult mating and egg laying.

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# A PERSPECTIVE OF THE ASH TREE - FROM ONE EXTREME TO THE OTHER

*William R. McAdams*
*McAdams Consulting, Inc.*

For decades the ash tree has been the staple of the nursery industry. Not only has the ash tree been relatively easy for commercial growers to produce, but it has had the ability to survive and thrive in a wide variety of soil and site conditions. While many other tree species have difficulty tolerating high clay soils, limited root zone areas, exposures to road salting, drought, and occasional flooding, the ash tree has managed quite well. Instead of having to improve soil and site conditions it was much easier and less expensive to plant ash trees. Even with the nagging persistence of ash decline, a disease, which even to this day is not understood very well, the ash tree remained a favorite of the market place. The more the market demanded ash, the more commercial nurseries grew them.


Emerald Ash Borer

Then, during the summer of 2002, the State of Michigan described the presence of a new wood borer species; the emerald ash borer, Agrilus planipennis Fairmaire. Reports from Michigan described ash trees dying virtually anywhere ash could be found, which included: natural woodlands, urban woodlands, private landscapes, and in commercial nursery production fields. As the emerald ash borer ravaged through the Michigan landscape virtually uncontrolled, the whole country watched in dismay, as the prospects of their own ash trees could soon be in jeopardy.

During the summer of 2003, the emerald ash borer was found outside of the State of Michigan, which included the states of Maryland, Ohio, and, Virginia, and also, Ontario, Canada. This confirmed the fears of many, as it now appeared that the spread of the emerald ash borer would be inevitable. Panic grew as discussions of the emerald ash borer crisis were held in many forums throughout the country. The notion of planting more ash trees, which would ultimately die from wood borer attack, was not acceptable. During the summer of 2004, the State of Indiana identified two emerald ash borer sites due to the introduction of infested firewood logs. Forums continued throughout the United States and the outcry became even more resolute. No more ash trees. Some might even go on to say that planting ash trees not only would be unacceptable, but unethical and irresponsible.

Had anyone dared to suggest, a few years earlier, that the market was overusing the ash tree, would anyone had listened? Probably not. Unfortunately, without an impending threat at hand, or the past experience of monetary loss, prevention, many times, is only a word used at Continuing Education Programs. For decades the universities have warned against the prac-

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tices of over-planting one particular tree species. This warning primarily came from the "lessons" that were supposedly learned from the outbreak of Dutch elm disease and the devastation that resulted from the over-planting of the elm species. Now as we look at our city streets it is fairly easy to assess that the ash tree was used to correct the elm problem. Now, as we face our current ash crisis, a question repeatedly asked, is, "What tree can we use to replace the ash?'

Are we doomed to the fate that history will always repeat itself? To paraphrase a statement once made by an entomology professor, " it is, as if, it is our objective to design our landscapes so that we create and sustain insect pest populations." Are we guilty of creating our own dilemmas, so that we continuously find ourselves jumping from one crisis to the next?


As one community after another lines up to ban the future use of the ash tree, it might be wise for them to also consider why were they planting so many ash trees in the first place? Communities need to recognize that limited budgets play a major role in many of their landscape planning decisions, which also set the stage for many of their future problems. With limited budgets communities often opt to take the least expensive route in completing a planting project. This usually results in the decision to buy the most with less. When buying cheap trees instead of the more expensive trees they are many times sacrificing the benefits of good root systems. Trees having good root systems are more expensive because the growers must commit more of an investment into their production. Quality trees, having good root systems, are more able to survive and grow much better than the cheaper trees. Cheaper trees having poor root systems do not grow as well and will many times enter a state of decline soon after planting. Trees in decline are much more prone to insect attack, especially wood borers. These type of failing trees usually undergo subsequent additional treatments to help them to grow more "normally". In many instances these remedial efforts, or short term fixes, require perennial repeat treatments. By the time these additional costs are added up, a community might have spent much more than they would have if they had committed to purchasing quality plant material in the first place.

Many sites in which communities plant trees are not conducive to root growth. Typically the soils are of poor structure and are subjected to many urban abuses which include road salting. In order to avoid the costly expenses of site renovations many communities opted in the past to plant ash trees. In comparison, the ash tree was relatively inexpensive and easier to grow which made it a long time favorite of the market. The ash tree served as a kind of a "Band Aide" which could tolerate the poor soil structures and abuses present at many urban site settings. If the ash tree is no longer an option, are communities prepared to pay for the additional costs of site renovations so that other tree species will be able to survive? Or is it a common belief that oak, maple, linden, hackberry, etc., can be planted in compacted clay holes having limited root zone areas which are exposed to road salting residue, excessive turf watering, and excessive mulching; and then, be expected to survive just like the ash tree did?

What will happen when a community decides to substitute oak trees for ash trees and plant them in poor soil structures? The oak will probably enter a state of stress and be highly susceptible to wood borer attack. Would it make a community feel better if the two lined chestnut borer (Agrilus bilineatus) kill their oak instead of the emerald ash borer killing their ash?

The two lined chestnut borer, which is in the same genus as the emerald ash borer, can be absolutely devastating to oak nursery liners and transplants, especially when they are under stress. However, considerations should not only be limited to the threat of wood borers, just because our current mind set is focused on the emerald ash borer. There are other major threats to the oak tree, which include: gypsy moth, oak wilt, and sudden oak death.

Years ago the oak wilt fungus was highly feared in the Midwest to have the potential of being just as devastating to the oak, as Dutch elm disease was to elm. Now, as we drive through the upper Midwest through stand after stand of oak trees, it is clear that oak wilt has not been as devastating as the Dutch elm disease. However, there appears to be a very good reason for this difference. Dutch elm disease was not only transmitted via the root grafting of infected roots to healthy root systems, but it also had a very efficient vector, the European elm bark beetle. The sap beetle (Family Nitidulidae), though identified as a successful vector of the oak wilt fungus, is not nearly as efficient. This limits the transmission of the oak wilt fungus to primarily that of the root grafting process (Gibbs and French, 1980). But does this end the oak wilt threat? What if an efficient vector of the oak wilt fungus were introduced? If we begin to over-plant oak, might we be entering the same abyss of the elm and ash?


Flat Headed Appletree Borer

What about maples? Are they tolerant of high clay soils, limited root zone areas, and exposure to road salting residue? Should we recognize that the Asian long horned beetle (Anoplohora glabripennis) prefers maple? Is the threat of Asian long horned beetle a moot topic now that we are focused on the emerald ash borer? When maples are under stress they become very susceptible to the attack of the flat headed appletree borer (Chrysobothris femorata (Olivier)). Though the impact of damage is not as devastating to mature trees, it can be very devastating to nursery liners and new transplants. Verticillium wilt, a vascular fungus, which can greatly impact susceptible maple varieties, may also become an issue especially if maples are planted in close proximity to one another.

Are lindens tolerant of high clay soils and road salting residue? Again, the flat headed appletree borer can be devastating, especially to stressed transplants. However, the linden borer (Saperda vestita Say), a wood borer species which is already well established, could become a major threat if numerous lindens are planted. It is also important to recognize that linden foliage is highly susceptible to Japanese Beetle adult feeding damage. Planting too many linden is not the answer.

Are there **ANY** trees that can be planted which are immune to wood borer attack? Even though the honeylocust has proven to be able to survive in many soil structures and be able to tolerate many urban abuses, honeylocust trees under stress are also susceptible to wood borer attack. And just because a wood borer is not known to occur on a certain trees species within a particular region, does not mean that a **NEW** wood borer species couldn't be introduced. Does the over-planting of any tree species make sense?

Planting a diverse assortment of plant material makes much more sense than switching from one monoculture to the next. A mixture of plant species is much more restrictive to the natural spread of insect and disease pests. And, if a devastating insect or disease problem is introduced, then the losses are much less expensive and easier to adjust to if a mixture of tree species are present. However, a major problem in the planning process is the reality that aesthetics sells much better than preventative insect and disease management. It is much more appealing to many people

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to have a uniform row of favorite plants lining the walkway or outlining the structure of a building. It is also very conducive to the development of many insect infestations and disease infections.

It is fully understandable that those experiencing the devastation of emerald ash borer infestations must commit to drastic measures to cope with the crisis. It is also wise that communities discuss the problems which threaten their landscapes and implement preventive actions. However, the abolition of the ash tree nationwide might be an over-reaction, especially at this time. It would be clearly understandable to significantly reduce the volume of ash tree plantings, but is over-planting oak and maple the answer? Are we solving one wood borer problem to create a list of others? Might the banning of the ash tree be more of a "knee-jerk" reaction to a much bigger problem?

We need to view our problems with more of an open mind. The potential outcome of many of our future problems are dependent upon how we manage our current problems.

There is always the innate temptation to jump to premature conclusions. Instead of searching for the "next" tree to add to the ever growing "don't plant that tree" list, we need to acknowledge that there are many other problems facing us that require our attention. What is the average life expectancy of a street tree? Is it 100 years? 50 years? 25 years? Or is it somewhere between 5 and 7 years? In retrospect, the ash tree crisis is only the "tip of the ice-berg".

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