

Northeast Wisconsin Forest Pest Update

August 17, 2009

Topics covered this month:

Insects:

Ash and Privet Borer
Ash Bark Beetle
Black Caterpillar
Boxelder Leaf Gall Midge
Cerceris Monitoring
Cuckoo Wasp
Eastern Larch Beetle
Emerald Ash Borer
EAB Look alike
Forest Tent Caterpillar moths
Gypsy Moth
Jumping Oak Gall
Lacebugs
Mimosa Webworm
Redheaded Ash Borer
Tortoise Beetle
Ugly Nest Caterpillar
Viceroy Caterpillar

Diseases:

Anthracnose
Beech Bark Disease in UP

Other:

none

Insects

Ash and Privet Borer – this longhorned beetle (right) is an Ash And Privet Borer (*Tylonotus bimaculatus*) and attacks live or dying hardwoods, especially ash and privet. It enjoys trees with storm damage, poor pruning, or girdling roots. The larvae bore under the bark and into the sapwood but create larger tunnels than EAB.



Ash bark beetle – when examining your trees for Emerald Ash Borer you might find damage from some of our native insects that attack ash, such as the ash bark beetle. In this area we have 3 different bark beetles that attack ash. Sometimes you’ll find small holes where the adult beetles appear to have bored into the bark just far enough to find a protected spot to spend the winter. At other times you may find where they have created galleries or tunnels underneath the bark (right). There will be horizontal galleries which the females create as they lay their eggs, and small (less obvious) vertical galleries created by the larvae as they bore away from the chamber that the female beetles created. This kind of damage can kill the tree or can kill branches.



Black caterpillar – I found this wonderful black caterpillar at my house and brought it inside to identify and raise. I had never seen a caterpillar that was so jet black. I identified it as an Intermediate Cucullia which feeds on wild lettuce (a weed). The moth has a much prettier name, the Dusky Hooded Owlet. But somehow the caterpillar escaped and I was unable to find it; with 2 cats and 3 dogs in my house I suspect that someone ate it.



Boxelder Leaf Gall Midge – the galls at right are caused by the Boxelder Leaf Gall Midge (*Contarinia negundifolia*). According to my books these midges probably have a single generation a year and spend winter in a cocoon in the soil. The tiny two-winged adult midges emerge in the spring and lay their eggs in the developing leaves, where larval feeding and development occur. It is unlikely that control measures will ever be necessary, even for aesthetic reasons, as the amount of leaf tissue affected will be tolerable.



Photo by Bill Ruff.

Cerceris monitoring – one tool in our toolbox for detecting Emerald Ash Borer is a Cerceris wasp (*Cerceris fumipennis*). This solitary wasp makes small nests in the ground (left, with quarter for size comparison) where it lays an egg and provisions the nest with buprestid beetles, including EAB if EAB is in that area. The adults sting their prey and paralyze it, then carry it back to the nest, where we can capture the wasp, steal their prey, and see what they’re bringing back (right). The methods for using

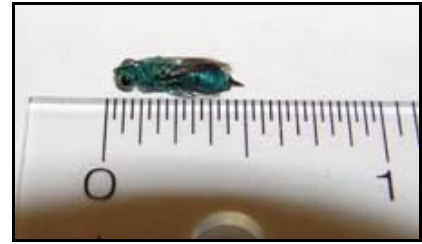


this wasp as a survey tool for EAB are still being perfected but the first monitoring in Wisconsin occurred this summer. Our first job was to find the colonies, and then we had to capture some of the wasps and steal their prey, and identify anything that resembled EAB. The wasp populations are winding down for the summer, more work will be done next year.



Photo by Bill McNee.

Cuckoo wasp – these bright metallic wasps, sometimes called jewel wasps, are a good insect to have! They are a solitary wasp, not living in groups, and are either parasites or cleptoparasites. The parasitic cuckoo wasps lay their eggs on a larvae of another insect (like a caterpillar) and the wasp egg hatches and feeds on the other larvae, eventually killing it. The cuckoo wasps that are cleptoparasites lay their eggs in the nest of a wasp, bee, or other insect, in which that insect not only laid its eggs but also provisioned the nest with insects or spiders that their larvae would eat once they hatched. But when the cuckoo wasp lays her eggs in that nest then the cuckoo wasp egg hatches and eats the other eggs or larvae, and then moves on to eat the provisions within the nest as well. The wasp in the photo above was sent to me as an “EAB look alike” that someone collected.



Eastern larch beetle – tamarack that is turning color early (usually starting in mid-August) is dying from Eastern Larch Beetle attack. The photo at right was taken August 12 in Door County. Eastern larch beetle is a small bark beetle that attacks larch/tamarack, boring under the bark, and leaving small round exit holes as the adults emerge. Besides the early color change, another sign to watch for is that the bark of infested trees is often stripped off completely by woodpeckers that were searching for the beetles under the bark. Control of this insect is difficult due to the places that tamarack usually grows. Harvests should only be done during frozen conditions since soil compaction, root damage, and damage to the residual trees may put them under additional stress which would make them more attractive to the beetles. Trap trees have been tried with limited success and chemical controls are difficult and impractical in a forest situation. For more information check out <http://www.na.fs.fed.us/spfo/pubs/fidls/elb/elb.htm> .



Emerald Ash Borer – from Bill McNee. Since last month’s pest update there are two new emerald ash borer detections to pass along:

- **Green Bay** – in late July, an EAB adult was found on a purple EAB trap in downtown Green Bay (Brown County).
- **Kenosha** – on August 10, an EAB adult was found on a purple trap on the west side of Kenosha (Kenosha County).

A quick look around the Green Bay trap found ash trees suffering from several other ash pests, but no obvious signs of EAB infestation. The origins of the beetles are currently unknown. Surveys to look for infested trees in these cities are expected to begin shortly. Neither county has been quarantined for EAB as of August 14, but a quarantine of ash materials is expected soon. In addition, purple traps around Newburg have caught EAB adults ~3 mi NW and ~2 mi NE of Newburg, significantly expanding the size of that infestation. EAB has now been found in Brown, Crawford, Kenosha, Ozaukee, Vernon, and Washington Counties since the first Wisconsin detection a year ago.



Purple EAB trap that caught an adult in Green Bay. Photo by Bill McNee.

We’ve been getting increased homeowner requests for information on insecticide treatments since the Green Bay find made the local news. A good brochure,

“Insecticide Options for Protecting Ash Trees From Emerald Ash Borer,” is available at www.emeraldashborer.wi.gov. Refer callers to the site for other EAB information as well. The current recommendation is to consider treating yard ash trees if within 10-15 miles of a known infestation. Treatments will have to be done every 1-2 years if the tree is to be kept alive.

If you went to forestry school at the University of Minnesota, you might be interested to hear that they found EAB on the St. Paul campus. Last week, two adult beetles were found on a purple trap. This detection is about a mile from where EAB was first found in St. Paul.

EAB look-a-like – this scarab beetle (left) was sent to me as an EAB look alike insect. The size looks about right, and the color is pretty good, but you can see, with EAB for comparison, that the shape is not right. I’m not sure which scarab this is but it certainly is pretty. Other look alike insects have come in this year as well, at right is a sampling, with EAB at the bottom for comparison.



Forest tent caterpillar adults – forest tent caterpillar moths have emerged and some of you



noticed these small brown-drab moths that are attracted to lights. They have 2 narrow bands of darker brown on their wings. The moths are not usually around for very long since their mission in life is to mate, lay eggs, and die, and birds love to eat them so congregations under lights will often be eaten by the birds first thing in the morning. The egg masses (left) are laid surrounding a small branch and eggs will hatch in the spring.



Photo by R.J. Wickham

Gypsy Moth – from Bill McNee. Male moth flight has been noticeably delayed compared to last year, but is now reaching its end in the southern Wisconsin counties. Reports indicate that moth flight in the far northern counties has only recently started. Total trap catch is only about ¼ of what it was a year ago at this time, but this is probably due to a combination of slower development and lower populations. Females (that don’t fly) should be producing egg masses for another two weeks in NER.



Female laying egg mass. Photo by Bill McNee.

The number of public gypsy moth complaints is down dramatically from last year, especially in the central Wisconsin counties where gypsy moth had been active for the past few years. Boundary Lake in northern Oconto County and the Town of Stephenson in Marinette County are the NER hotspots this summer. Scattered calls have come in from the rest of the region. Dane, Milwaukee and Oconto Counties generated the most calls to the state gypsy moth hotline this summer (1/3 of all calls came from the Madison area). At present, NER is expected to have a small suppression spray program in 2010.

For those local governments contemplating participation in the 2009-10 gypsy moth suppression program, training sessions will be held in Fitchburg on Sept. 17, Brookfield on Sept. 24, and Howard (Brown Co.) on Sept 25. These sessions will cover the biology and management of gypsy moth, how the suppression program works, and options for funding the

spraying at the local level. The Brown Co. session will be at the DNR Regional Office, 2984 Shawano Ave. in Howard, from 9:30 until noon. The address to map is 2984 Shawano Ave., Green Bay. Please pre-register for the NER session by emailing Bill McNee (bill.mcnee@wisconsin.gov).

Jumping oak gall – this gall is caused by a tiny gall wasp. The small galls shown here will develop into larger round flattened galls on the undersides of oak leaves and will fall off the leaves before the leaves begin to drop in the fall. The galls drop to the ground where they'll begin to move and/or "jump" so that the gall can move deeper into the leaf litter or the soil which will offer it protection throughout the winter. The adult gall wasps will emerge next spring and start the cycle over again. This is not a health issue for the tree since the leaves generally do not fall off due to the infestation.



Top of leaf. Photo by Kim Sebastian.



Young jumping oak gall on underside of leaf. Photo by Kim Sebastian

Lacebugs - these insects can be found on the undersides of leaves. Cherry is the most commonly infested tree this year. Trees with severe lacebug damage appear yellow or reddish from a distance, as you get closer



leaves appear pale or white (right) but upon closer inspection the pale white areas are small areas where the insects sucked the plant juices from the underside of the leaf creating a small dead area of leaf material. To see the insects flip the leaves over (left) and look for adults (they'll have wings) or smaller wingless juveniles, you might also see the shiny dark brown



“droppings” of the lacebugs. If the damage on your trees is already severe then I wouldn't recommend pesticides at this time because the damage is already done. You could monitor those trees next year to see if the lacebugs return and decided whether or not to spray them next year.

Mimosa webworm – a sample of mountain ash was sent to me with webbing containing Mimosa webworm. The caterpillars of this non-native insect webs leaves together and feeds within the webs. There are usually 2 generations each year. The moths are small white moths (~1/2 inch long) with black spots and fringed wings (right). Birds enjoy eating the caterpillars if they can get to them through the webbing, or insecticides can be used to control both generations of the caterpillars.



Redheaded Ash Borer – Redheaded ash borer is one of our native longhorned beetles that attacks ash. The larvae (below) bore under the bark as well as deeply into the wood of the tree (holes at left in log



Photo by Bill Ruff

cross section). This longhorned beetle attacks ash trees that are under stress. The damage from these beetles causes dieback in trees, can damage branches and the main stem and in some cases the tree can die. Adult beetles create a



Photo by R.J. Wickham

round exit hole when they emerge from the trees. In addition to the round exit holes look for knotty, lumpy, misshapen areas with rough cracking bark. Over the past year I have found this on all sizes of ash trees.

Tortoise beetle – this small, round, flattened insect is a tortoise beetle. Adults and larvae feed on leaves but are generally not a significant pest on trees. These beetles have several interesting traits compared to other insects. The larvae have spikes on their body and they impale their shed skins and feces on these spikes to make themselves unpalatable to other insects that might want to eat them. The adults also have a unique trait; they are usually a metallic color, but when the adult dies this metallic color fades rather than staying bright metallic as many other insects do.



Photo by Matthew Stefanski, Newburg, WI.

Ugly nest caterpillar – these small caterpillars, found in Oconto County, had webbed together oak leaves and were feeding within the webbing. Ugly nest caterpillars web leaves together very tightly using strong webbing and feed within the protection of their web. When you rip open the web you'll find lots of frass as well as the caterpillars themselves. They will also pupate within the nest so you may find pupae. Preferred hosts include hawthorn and cherry but it will feed on other trees as well.



Viceroy caterpillar – this viceroy caterpillar was feeding on an aspen tree near my house. As you can see, the viceroy caterpillar looks a lot like bird droppings, which is one way to deter birds from eating it. These caterpillars will feed on willow, aspen, and cottonwood, but never in high enough numbers to be considered a pest. The adult butterfly is shown at left.



Diseases

Anthracnose – the spots shown on these horse chestnut leaves (right) are caused by anthracnose. These spots look little different than the dead spots that anthracnose causes on oak (left) or maple. Symptoms of anthracnose on white oaks are fairly severe this year in many areas around the region.



Photo by Mary Ripp

Beech Bark Disease in the UP – beech bark disease is a combination of a scale insect and a nectria canker. This disease is marching westward across the UP, killing beech as it goes. The scale has recently been discovered as far west as Norway, Michigan (red dot on map), just a few miles north of the MI/WI border. If you manage beech stands, or have stands with a significant amount of beech, check out the document “Preparing Wisconsin’s Forests for Beech Bark Disease” to help you prepare for this disease

<http://dnr.wi.gov/forestry/fh/pdf/BBDManagementGuidelines0608.pdf> .

When Beech Bark Disease first passes through a stand it will kill the majority of beech trees. Some trees will be resistant to the disease but there is no way for us to determine which trees are going to be resistant until the disease goes through a stand and shows us which trees have survived with minimal scale and disease.



Other/Misc.

None this month

Report EAB:

by phone 1-800-462-2803

by email DATCPEmeraldAshBorer@wisconsin.gov

visit the website <http://emeraldashborer.wi.gov/>

Report Gypsy Moth:

by phone at 1-800-642-6684

by email dnrfgypsymoth@wisconsin.gov

visit the website <http://www.gypsymoth.wi.gov/>

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Note: This pest update covers forest health issues occurring in Northeastern Wisconsin. This informal newsletter is created to provide up-to-date information to foresters, landowners, and others on forest health issues. If you have insect or disease issues to report in areas other than northeastern Wisconsin please report them to your local extension agent, state entomologist or pathologist, or area forest pest specialist.

Pesticide use: Pesticide recommendations contained in this newsletter are provided only as a guide. You, the applicator, are responsible for using pesticides according to the manufacturer's current label directions. Read and follow label directions and be aware of any state or local laws regarding pesticide use.