

National Updates

First Detections of Emerald Ash Borer in Minnesota and New York

Infestations of emerald ash borer (EAB) have been recently detected in two new states. This serious pest of ash trees was detected in the North Central region in St. Paul, Minnesota in mid-May, just northeast of Interstate 94 and Highway 280. Another detection was made mid-June in the Northeast region in New York. The NYS detection was made in Cattaraugus County just off Exit 16 of State Route 17/I-86.

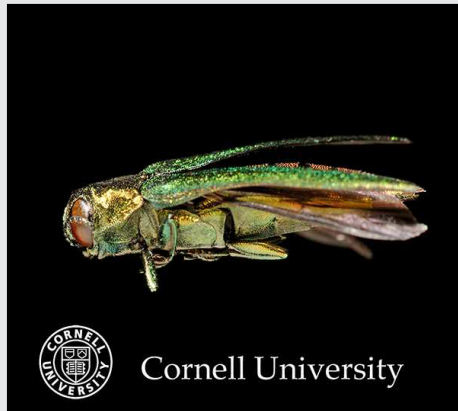
Since 2002, EAB has been detected in thirteen states and two Canadian provinces.

For more information on EAB and both of these detections, please visit on the web:

[Emerald Ash Borer Information](#)

[Minnesota Officials Find Emerald Ash Borer Infestation in St. Paul Neighborhood](#)

[Emerald Ash Borer Found in New York State](#)



Click on image to the left to see a [360 degree view of emerald ash borer](#). If you click on the moving image a second time you can use the hand tool to rotate it. You may need Quicktime to watch this video. To download Quicktime, click [here](#). Virtual object movie, Kent Loeffler, Cornell University.

Issue Highlights:

- ◆ First Detections of Emerald Ash Borer in Minnesota and New York
- ◆ Getting the Most Out of the NPDN Web Site: Where are the Official NPDN Policies?
- ◆ Diagnostics Subcommittee Update
- ◆ Diagnostic Tip of the Month: Quick Sectioning Method
- ◆ National Database Subcommittee Update

Getting the Most Out of the NPDN Web Site: Where are the Official NPDN Policies?

The NPDN continues to populate www.npdn.org with training, diagnostic, and administrative information and documents. Last month's newsletter highlighted the NPDN diagnostic SOPs. This month we'll direct you to the official NPDN policies.

The NPDN policies are written by NPDN regional directors, with assistance from NPDN members and stakeholders. Several policies have been ratified and posted to the NPDN web site over the past few months. While these are not necessarily new policies, these are the document versions that the NPDN Executive Committee approved over the past year. Posting only the approved versions to the web site allows all the most up-to-date information to be housed in one place for your convenience.

You can find the NPDN SOPs by first logging into the NPDN web site (www.npdn.org) with your NPDN/PDIS credentials, then navigating to the column of options on the left-hand side of the page. Click on Policies near the bottom of the left-hand menu column.

The current list of policies includes:

- **NPDN Data Definition Policy:** This policy defines the types of data that the diagnostic laboratories should forward to the National Repository, and also prioritizes the types of data to be sent to assist decision-makers at the laboratories during times of sample surge.

- **NPDN Data Submission Policy:** This policy explains the data submission requirement of participating laboratories in the NPDN.

- **Data Sharing Policy (Draft):** This policy outlines the data use and confidentiality recommendations of the NPDN and its regulatory partners.

- **Web Site Access Policy (Draft):** This policy explains the NPDN web site access granted to diagnosticians in the NPDN.

- **Presentation Log Policy (Draft):** This policy was drafted to communicate the number and breadth of NPDN presentations being delivered throughout the network.

Diagnostics Subcommittee Update

Karen L. Snover-Clift, Committee Chair
Cornell University
Department of Plant Pathology and Plant-Microbe Biology

The NPDN diagnostics subcommittee held a conference call on June 11, 2009. During this meeting a number of issues were addressed. Please refer to the diagnostics subcommittee web page of the [NPDN web site](#) for complete minutes of this meeting (login and password required).

Topics of discussion included:

- Update on Potato Wart Workshops, Beltsville-NPDN Diagnostician Workshops
- Update of the basic technique workshop at Penn State University
- Status of SOPs and new select agent SOPs

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- Discussion of a web-based platform for diagnostician discussions
- Discussion of needing input for the IT-Diagnosticians Meeting in Indianapolis, IN

The next conference call will be held on Thursday, July 9, 2009.

Diagnostic Tip of the Month: Quick Sectioning Technique

Bruce Watt

University of Maine

Insect and Plant Disease Diagnostic
Laboratory

For me the most difficult part of identifying many fungi is getting a good section of the sporocarp. This is especially true during the peak of the growing season when the backlog of samples seems never to shrink. Because time is limited, traditional embedding and sectioning techniques are too involved to be practical. Fortunately, I came across a freehand sectioning technique as described by Rupert B. Streets in his laboratory manual, *The Diagnosis of Plant Diseases*. Because I have just received a sample of Jack-in-the-pulpit rust, I will use it to run through my adaptation of this technique.

Having excised an appropriate section of the leaf, I place the section on the top of a small (47mm) plastic Petri dish. The surface of the plastic has been scored with a razor blade to keep the sample from slipping and the ridge at the edge of the top has been pared down to allow a glass slide to lie flat (Figure 1).

I then place a slide on top of the leaf section (Figure 2).

Using the edge of the slide as a cutting guide, I slice several sections off of the sample with a rapid slicing motion while moving the slide back from the edge with each cut (Figure 3).

Diagnostic Tip of the Month



Figure 1: Section of leaf on plastic Petri dish scored with a razor blade.

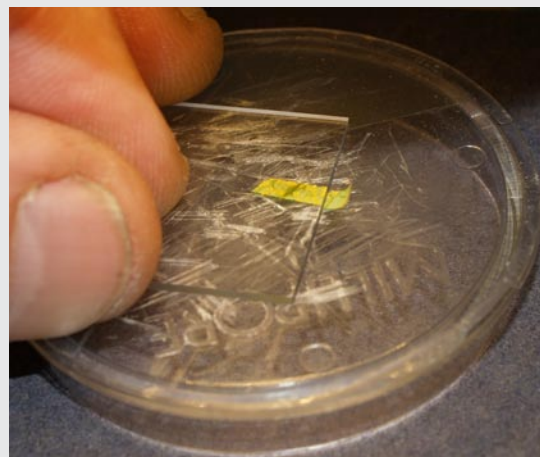


Figure 2: Slide placed on top of leaf section.

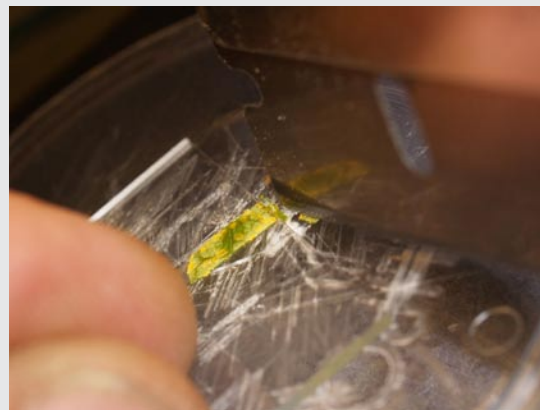


Figure 3: Slicing several sections off of the sample using the edge of a slide as a guide.

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Diagnostic Tip of the Month

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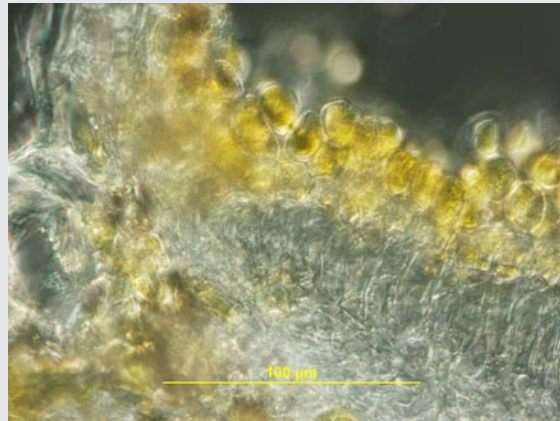


Figure 4. A section from the sample after it had dried overnight.

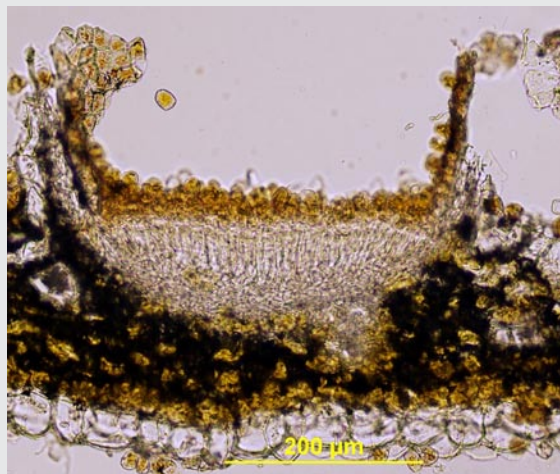


Figure 5. General fungal structures that can be viewed from samples.

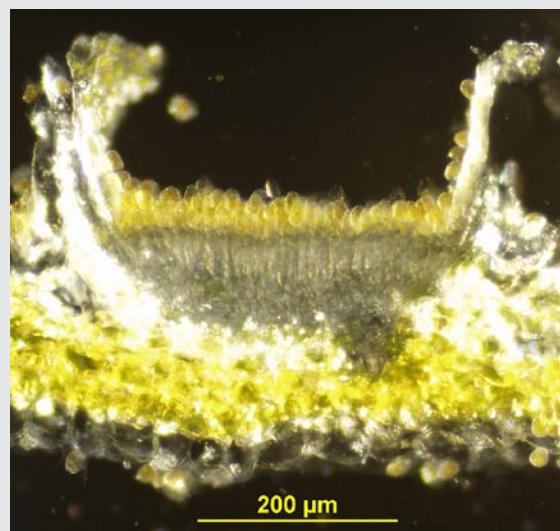


Figure 6. Top lighting the specimen can yield better results.

I then moisten an insect pin and touch it to the sections to transfer them to a slide. This technique will often yield very thin sections which are suitable for viewing under the microscope. Thin sections may also be obtained by holding the slide stationary while adjusting the angle of the blade as it lies against the slide.

I always use a new razor blade, which I buy in bulk from an office supply catalogue, to prevent tearing the tissues.

Every sample has its own challenges. For example, the leaf tissue I used here was very soft and I could not get a good section. When the leaf had partially dried overnight the tissue was much firmer and I was able to get reasonably good sections. Figure 4 is an example of one such section.

Thicker sections can also be useful for general structure (Figure 5) and I find that top lighting the specimen can yield some enlightening results (Figure 6).

The keys to using this technique successfully are practice, patience and adaptability.

Reference:

Rupert B. Streets. 1972. *The Diagnosis of Plant Diseases*. The University of Arizona Press. (<http://www.uapress.arizona.edu/BOOKS/bid634.htm>)

Digital Imaging:

Fig. 1-3 Olympus E-500 SLR with 50mm Macro lens

Fig. 4 Olympus BX-51, 40X DIC, Olympus DP70 digital camera

Fig. 5 Olympus BX-51, 10X Brightfield, Olympus DP70 digital camera

Fig. 6 Olympus BX-51, 10X Olympus Highlight 300 fiber optic top light, Olympus DP70 digital camera

National Database Subcommittee Update

Karen L. Snover-Clift
Committee Chair
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Microbe Biology

The NPDN national database subcommittee met on June 10, 2009 to continue our work on reviewing the massive EPA Pest and Host lists and revising guidelines for uploading documents that will clarify how sample diagnoses should be transmitted to the National Repository at Purdue University. During this meeting a number of issues were addressed. Please refer to the national database subcommittee web page of the [NPDN web site](#) for complete minutes of this meeting (login and password required).

Topics of discussion included:

- Discussion of change submissions
- Discussion of new groups for review

The next meeting will be held on July 8, 2009.

National Database

Upcoming Events

National Events

August 1-5, 2009, [2009 APS Annual Meeting, Portland](#), Oregon

August 26-27, 2009, [2009 Soybean Rust Short Course](#), Quincy, FL

December 6-10, 2009, [NPDN National Meeting](#), Miami, FL

December 9-11, 2009, [2009 National Soybean Rust Symposium](#), New Orleans, LA

December 13-16, 2009, [2009 Entomological Society of America Annual Meeting](#), Indianapolis, IN

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