

Options For Local Emerald Ash Borer Detection Efforts March 2013



Reduced budgets for emerald ash borer (EAB) detection have continued to shrink the size of large-scale trapping and surveying projects, and in future years these projects may not be conducted. As an alternative, communities may choose to undertake their own EAB detection efforts to support specific EAB management activities.

Current status of EAB in Wisconsin

For a current map of quarantined counties and list of communities with EAB detections, visit: <http://emeraldashborer.wi.gov>.

Should your community do detection work?

There is no simple answer. The decision whether or not to do detection surveying should be based on local circumstances. Distance from known infestations, forest management level, community interest and community resources vary. It is also important to realize that there are several detection methods that vary in effectiveness, cost and staff requirements.

Detection surveys are not worthwhile if within 10-15 miles of a known EAB infestation (where infested trees or adult beetles have been found). In this situation, you likely already have EAB and are likely to find infested trees in the near future. Invest your time and resources into ash treatments or removals according to your EAB management plan.

If your community is more than 10-15 miles from a known infestation, detection surveying can be an important part of – though not a substitute for – forest management. If early EAB detection is important to implementing your community's management plan, then detection surveys are encouraged. If public awareness of EAB is important to the community, then trapping can be a very visible public education tool. Community groups (volunteers, master gardeners, etc.) can be encouraged to undertake detection surveying if municipal resources are limited.

If early detection is not important or if detection would not change your management strategy, then consider using available resources to proceed with implementing your management plan. Preparing a management plan should be a high priority for communities that have not already done so.

Even though EAB has only been found in certain areas of Wisconsin, a general recommendation from well-infested states is to proceed as if EAB is present in your community and start implementing your management plan, especially if you're near a known EAB detection. One state noted that communities that removed and examined declining ash trees found EAB earlier than those that didn't.

Even if your community decides not to do formal detection surveys, it is important to continue looking for the signs and symptoms of EAB during routine tree care work and interactions with community residents.

Benefits of surveying

- Detecting EAB as early as possible gives more treatment and removal options for municipal and privately owned trees. Removal costs are typically lower if done while the trees are still alive.
- Survey results can be used to time ash treatments and removals.
- Traps are highly visible and help to maintain community awareness of EAB.

- Homeowners and neighboring communities will also benefit if your community finds EAB, especially if no one else is looking.

Limitations of surveying

- A trap and lures will cost \$30-70, plus shipping charges and staff time. Plan on an estimated 40 hours total time to purchase, set up, monitor and take down 6-8 traps in pre-determined locations.
- Examining collected beetles will take additional time.
- Limited funding and staff time may mean that other work is not done.
- EAB may be present even though EAB is not detected.
- Detection without follow-up management is time and money wasted.

Protocols for branch peeling surveys

- Natural Resources Canada document by K. Ryall, et al.:
<http://dnr.wi.gov/topic/UrbanForests/documents/EABToolBox/EAB-DetectionProcedure.pdf>.

Protocols for creating detection trees

- Michigan State University, *Using Girdled Trap Trees Effectively* by Dr. Deborah McCullough et al.:
http://emeraldashborer.info/files/Using_Girdled_Trap_Trees_Effectively_For_EAB_Detection_Delimitation_&_Survey.pdf.

Protocols and resources for emerald ash borer trapping

- Current research on trap types and lure options:
<http://emeraldashborer.info/Research.cfm#survey>.
- USDA-APHIS Emerald Ash Borer Survey Guidelines (this is a guide for state trappers but information on how and where to use panel traps may be relevant to communities):
http://www.aphis.usda.gov/plant_health/plant_pest_info/emerald_ash_b/downloads/survey_guidelines.pdf.
- Information on building and installing double-decker panel traps (This system is used by WI DNR on state lands): http://www.emeraldashborer.info/files/double_decker_eab_trap_guide.pdf.
- Purchasing EAB Traps and Lures: As of March 2013, communities can purchase traps, lures and other supplies from two vendors:

Synergy Semiochemicals Corp.: <http://www.semiochemical.com/>

Great Lakes IPM, Inc.: <http://www.greatlakesipm.com/>

- Two trap panels come stuck together, so traps must be ordered in pairs
- According to USDA-APHIS survey guidelines, the lure should be refreshed at 60 days

State resources available to communities

- Technical advice for implementing survey efforts (trap vendors, survey methodology, etc.).
- Limited site visits by state agency staff.
- Suspicious insects can be reported to the EAB hotline (1-800-462-2803) or website (www.emeraldashborer.wi.gov).
- DATCP will examine properly submitted EAB suspects, but not all insects that you collect.
- Educational materials.

Last revised: 3/7/2013

- Quarantines and compliance agreements.

If you find a suspected EAB life stage or infested tree, please call the Wisconsin Emerald Ash Borer Hotline at 1-800-462-2803 and/or email photos to: DATCPEmeraldAshBorer@wisconsin.gov. Report any suspected EAB infestations if not already confirmed in that community.

Contact your local DNR Urban Forestry or Forest Health specialist if you have questions about EAB detection and management. For a staff directory, visit <http://www.dnr.wi.gov/forestry/>.

If you need assistance with this guidance or have technical questions, contact:
Bill McNee (bill.mcnee@wisconsin.gov) or Mark Guthmiller (mark.guthmiller@wisconsin.gov).

More information on EAB status and quarantines is available at www.emeraldashborer.wi.gov.

For additional information on survey method options see below:

What are the community-based detection options?

				
Branch Peeling	Visual Survey	Detection Trees	Panel Traps	Funnel Traps
<ul style="list-style-type: none"> ○ Canadian survey method cuts and peels two 2-4” mid-crown branches per tree to look for larvae and galleries ○ Has been shown to detect early-stage infestations ○ Can be done as part of routine tree work ○ No special equipment needed (although a draw knife is useful) ○ Labor intensive ○ Little public awareness of EAB due to surveying 	<ul style="list-style-type: none"> ○ Look for declining trees or heavy woodpecker damage ○ Heavy woodpecker damage may be very apparent in late winter if EAB is present ○ Hard to detect early-stage infestations ○ Can be done as part of routine tree work ○ No special equipment required ○ Little public awareness of EAB due to surveying 	<ul style="list-style-type: none"> ○ Girdle living ash trees to attract EAB ○ Is a destructive survey requiring tree removal ○ Very labor intensive to cut and peel the tree to look for EAB larvae ○ Can be a safety hazard, so locations must be chosen carefully ○ Very visible to the public and helps maintain EAB awareness 	<ul style="list-style-type: none"> ○ Sticky surfaces trap flying adults ○ Available in purple and green ○ Traps last for one field season ○ Expense includes traps and lures ○ A trap catch does not indicate the location of infested trees, and will require follow up work ○ Very visible to the public and helps maintain EAB awareness 	<ul style="list-style-type: none"> ○ Collect adult beetles in a cup at the bottom of the trap ○ Available in purple and green ○ Can be used for multiple field seasons ○ Expense includes traps and lures ○ A trap catch does not indicate the location of infested trees, and will require follow up work ○ Very visible to the public and helps maintain EAB awareness