

## An Update on the Emerald Ash Borer in New York: Part 1

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The Emerald Ash Borer (EAB), *Agilus planipennis*, is quickly developing into the most significant forest pest to hit New York since the Chestnut blight. The issues created by dead ash trees are increasing in importance as infestations develop in the state. I'm writing this article in two parts because there is so much riding on management decisions and the better informed you are the better your decisions will be. In this first part I will focus on where the current infestations are and how fast EAB is spreading so you have a better idea of when you need to be ready to act. The second part will deal with the latest research on management and focus on best management practices with pesticides that are being developed in the Midwest.



Figure 1. Know your EAB larvae. When you pull the bark off an ash and find larvae look for the small flat head and the nested bells on the posterior part of the larva. Photo by Mark Whitmore.

EAB (Figure 1) has been spreading in New York and it is important for anyone with ash trees to be aware of recent developments in order to formulate effective management decisions. Although first detected in New York in 2009, EAB has been established in most locations much longer than that and now populations are building to the point that they are beginning to spread across the landscape at an increasing rate. Although less than 5% of New York's forests are infested, this will be changing, and in some locations quite rapidly. Currently there are 9 infested areas in New York and two locations where there have been trap catches but no detection of

infested trees (Figure 2). The following discussion will focus on the different infestations in order of their size. As you read I encourage you to reference maps of these infestations produced by the New York State Department of Environmental Conservation that can be found on the New York Invasive Species Clearinghouse website: [www.nyis.info/?action=eab\\_maps](http://www.nyis.info/?action=eab_maps)

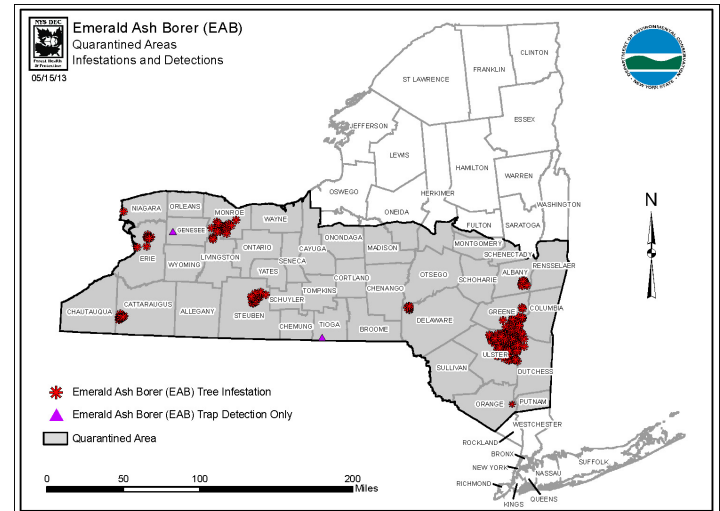


Figure 2. Map of Emerald Ash Borer infestations and quarantined areas as of 15 May 2013. Map produced by Scott McDonnell, NYSDEC.

### Ulster, Greene, and Dutchess Counties

The largest EAB infestation in the state is in Ulster, Greene, and Dutchess Counties where infested trees have been found over an area more than 250 sq. miles. On the west side of the Hudson River the infestation has been detected from about 5 miles north of Catskill south to Esopus (about 35 miles), and west of the river beyond the Blue Line almost to Phoenicia (about 18 miles). The infestation was just last year detected on the east side of the river in Dutchess County extending from Tivoli to just north of Hyde Park (about 18 miles) and extending east of the river in a couple spots just over 2 miles. The infestation appears to be spreading quickly to the west, north, and south at a rate of about 5 miles per year. On the leading edges of the infestation, as with others in the state, signs and symptoms are sparse. As you move towards the center the damage becomes more apparent. The most dramatic effects are being seen to the west of the river in the relatively contiguous forest between Woodstock and Ruby. In this area woodpecker foraging is easily seen and mortality is widespread. No tree mortality from EAB has yet been detected east of the river in Dutchess County. I recommend that anyone living within 10 miles of the infestation core (the black area on the maps referred to above) should have their trees treated if they wish to save them. The closer to the core the more rapidly you should act.

### Greater Rochester

The core of the Greater Rochester infestation extends southwest from downtown Rochester to just south of Caledonia in Livingston County (about 20 miles) and is about 13 miles at its widest centered near to where I-90 passes over the Genesee River. The majority of

mortality is still confined to an area of about 2 miles around this center. However, spotty mortality is appearing more than 4 miles away towards Chili, south of Scottsville, and around the RIT campus. One of the big problems in this area is the high concentration of ash in woodlands which will foster a large population buildup. It is impressive driving along the Thruway and seeing the mortality in the area around the Genesee River Bridge. As with all EAB infestations, it takes a couple years for trees to die and in the meantime EAB is moving further away. The infestation seems to be moving at about 2 to 3 miles per year east and west of the center. But a couple years ago a satellite infestation was detected 9 miles to the SW of the center, just south of Caledonia where a small number of infested trees were detected. Here EAB is moving more slowly. Another satellite

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population was detected in a small park in downtown Rochester about 10 mile NE of the center. Infested trees were either destroyed or treated and no others have been found since. The infestation seems to be moving more slowly than the Mid-Hudson, this will be changing rapidly in the next few years as populations build. I recommend treatment within 10 miles of the infestation core.

### **Erie County**

The Erie County infestation is the most urban of our infestations. The center of mortality appears to be in Lancaster, less than a mile SE of the Buffalo Airport. Ash is abundant in the forests of the region and the EAB population has built up in small woodlots, along streets, and in backyards. Mortality has just begun to show up about 2 miles north of I-90 and extends south to near West Seneca. To the west there has not been mortality detected beyond the airport but to the south mortality has just been found in Depew about 2.5 miles from the center in the DEC's Reinstein Woods. The story is different to the east where mortality is beginning to show up in a large ash and red maple swamp about 2.5 miles from the center. EAB populations will build in this area and movement in this direction could become rapid in the coming years. There is a satellite population in West Seneca just west of the intersection of Transit Road and Hwy 400. Mortality is largely limited to about 1 sq. mile area between Lein and Bullis Roads but there are woodlots in the area that will begin showing symptoms soon. South Park is another satellite infestation that is just beginning to show mortality within the park and detections have been made up to a mile south in Lackawanna. EAB has likely dispersed between these infestations but mortality is not apparent. I recommend treatment within 10 miles of the infestation core.

### **Cattaraugus County**

The Randolph infestation in western Cattaraugus County was the first discovered in the state and much effort has been invested to slow the spread here. This seems to have paid off since mortality is still largely confined to an area about ½ mile from the infestation center around exit 16 on I-86. However, detections have been made more than 3 miles from the center and mortality is beginning to appear up to 1.5 miles away, primarily to the west, south, and southeast. The infestation could begin moving quickly once populations build in the large contiguous forest tracts south and north of Randolph. I recommend treatment within 5 miles of the infestation core.

### **Albany County**

The Bethlehem infestation in Albany County covers an area of about 4 sq. miles located between South Bethlehem and the railroad yard to the north. Right now mortality scattered through the area and detections have been made at the periphery near South Bethlehem.

Populations are building in the many woodlots in this area and it will be moving north into the more urban areas as well as SW where there is contiguous forest. I recommend treatment within 5 miles of the infestation core.

### **Steuben County**

EAB mortality at the Bath infestation (Steuben County) is centered on a woodlot about 3 miles north of the village. Mortality is greatest in a small area within about half a mile from the origin but it appears to be moving primarily to the north and northeast at about 5 mi. per year and mortality just beginning to show up just SW of Hammondsport. I recommend treatment within 5 miles of the infestation core.

### **Niagara County**

The Lewiston infestation in Niagara County is still very small with very little mortality appearing. The infestation seems to be localized near the Niagara Falls Country Club although detections have been made about 1 mile to the east. Ash is common in nearby woodlots where populations will soon be building. I recommend treatment within 2 miles of the infestation core.

### **Orange County**

The West Point infestation in Orange County is also very small but ash is a very minor forest component. The few infested trees that were detected have been destroyed and survey continues.

### **Genesee County and Tioga County**

There are two locations where a single EAB was caught in a purple trap and no infested trees have been found despite a considerable survey effort. Three years ago an EAB was caught in a trap In Pembroke, Genesee County, about 2 miles SE of exit 48A on I-90 and no infested trees have been found. Last summer an EAB was caught on a trap about ¼ mile from Tioga Downs in Tioga County and despite much survey not a single infested tree has been detected. I would delay treatment in these areas for now.

### **Management Plans**

Homeowners and communities need to begin developing ash management plans before the arrival of EAB. As I will discuss in Part 2, there are many management options available. It is important for everyone to realize that urban trees are being successfully treated with systemic insecticides in the Midwest even after displaying considerable crown decline. Communities are beginning to understand the value of a healthy urban tree canopy and after carefully considering the costs and benefits are opting to treat their trees rather than remove them. Planning tools like the Purdue EAB Cost Calculator and pesticide BMP's are constantly being developed and everyone needs to be aware of these resources to make sound management decisions. Local EAB Task Forces have formed throughout the state with the help of Cornell Cooperative Extension and are a great opportunity for tree care professionals and others to help their communities understand and plan for EAB issues. Detailed EAB information and resources as well as contact information for the EAB Task Forces can be found at: [www.nyis.info/eab](http://www.nyis.info/eab)

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Remember that less than 5% of New York's forests are infested but this will be changing and everyone needs to use this time to plan ahead. Movement of infested materials will spread EAB and shorten the time we all have to plan.