

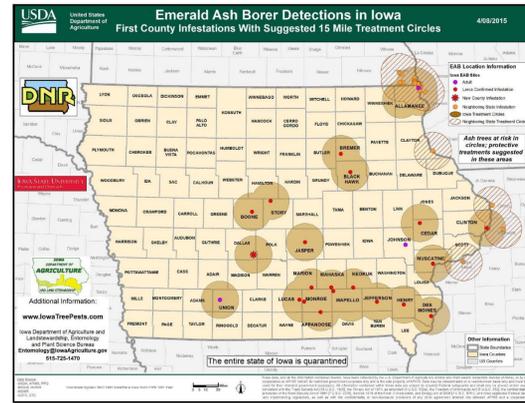
Emerald Ash Borer: monitoring and management recommendations for the City of Iowa City, IA

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<http://www.emeraldashborer.info/images/homepagemap.gif>



http://www.iowatreepests.com/images/iowa_Q_Map.jpg

- Emerald ash borer (EAB) is an invasive beetle first detected in the US in 2002, rapidly spread to 25 states and 2 Canadian provinces
- Already resulted in the loss of millions of ash trees at a significant cost to governments and private property owners
- EAB is expected to arrive in Johnson County in the near future
- Monitoring and management strategies are necessary
- **Our project will assist the City of Iowa City by:**
 - 1) Providing information on the ecology of EAB
 - 2) Completing an inventory of ash trees in the Iowa City area
 - 3) Suggesting methods for monitoring EAB
 - 4) Recommending treatment or replacement options for ash trees

EAB Identification and Ecology



- Adults are similar to native North American borers
- Leave characteristic D-shaped exit hole in bark



<http://static1.squarespace.com/static/502d2ced4b0ab396711e0891/553e43d3e4b0bfb591520753/1430143960167/>



<http://www.arinvasives.org/wp-content/uploads/2012/09/5110029-LGPT.jpg>



<http://mdc.mo.gov/sites/default/files/media/images/2010/08/36.jpg>

- Larvae bore through ash bark and feed on phloem in tunnels called galleries
- Feeding disrupts nutrient and water transport, trees die within 2-4 years

Methods



- Survey of all trees, identification and record of locations for all ash trees at 15 randomly selected sites on public land



- Measured sizes of ash trees: diameter at breast height, tree height, crown width



Numbers of ash per site

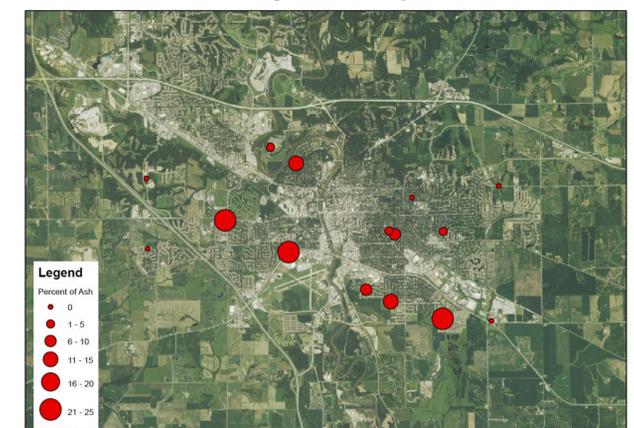


Legend
Number of Ash
0
1-5
6-10
11-15
16-20
21-25
26-30

Results

- Iowa City could lose approximately one tenth of its street tree population
- The sampled park sites had 6.3 percent ash
- The sampled streets sites were 9.4 percent ash.
- Combined, 7.3 percent of all trees were ash

Percentage of ash per site



Legend
Percent of Ash
0
1-5
6-10
11-15
16-20
21-25

Recommendations

- Focus monitoring on Street sites
 - Glendale Rd
 - Hawk Ridge Rd
 - Melrose Ave
 - Park Rd
- Park sites are of secondary concern
 - Natural setting, trees not hazards
- Canopy traps like those shown on right (double decker blue traps) have been proven effective



- Cedar Rapids, IA EAB management plan cost assessments indicate a method of removing some trees, treating others provides balanced approach
- Cedar Rapids replacement tree mortality data indicates good candidate street trees
 - E.g. Amur Corktree, Black Locust, Hackberry, Crabapple, Kentucky Coffeetree, Miyabei Maple

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