



Arrest That Pest! EMERALD ASH BORER in Indiana



Dear Educator,

In the summer of 2002, the Emerald Ash Borer (EAB) was discovered in ash trees in the Detroit and Windsor areas. Since that time this exotic invasive pest has been responsible for the systematic destruction of ash trees throughout Ontario, Canada, and parts of Michigan, Illinois, Indiana, Ohio, Pennsylvania, and Maryland. Any ash tree that is native to North America can be killed within a few years after it has been attacked by EAB. Because of the high rate of mortality associated with this pest, we fear that ash trees as a species in North America may face extinction.

Experts think that the borer traveled from Asia to North America via wooden packing materials and that EAB continues to move primarily by human transport of ash wood products. Adult insects only move short distances on their own, so human activity continues to be the main culprit for spreading this pest. The contribution of people to this serious problem represents an opportunity for educators of young people to engage them in conversations concerning scientific, economic, environmental, and social issues.

Because of continued advances in technology, trade, and travel, it has become increasingly important for all students to recognize themselves as citizens of the world. Our planet continues to shrink as distances become easier to traverse, and our interdependence grows. We must take every opportunity, every “teachable moment,” to reinforce the idea that the choices that we make affect not only members of our local community, but everyone around the globe.

In an effort to meet the challenge that Emerald Ash Borer represents in Indiana, the EAB Education and Outreach Team at Purdue University has created this guide. We hope to motivate young people to take ownership of the environment and understand the ecological and economic impact of this pest.

This curriculum and activity guide will facilitate learning about insects and their place in the ecosystem, generally, and the Emerald Ash Borer and its taxonomy, pathology, and

impact specifically. This guide is founded on the Indiana Academic Standards adopted by the State Board of Education and the most accurate and up-to-date research from scholars and scientists in the fields of entomology, horticulture, and forestry and natural resources.

We use strategies that draw on a variety of subjects (science, social studies, math, and language arts) to foster and support critical thinking and thoughtful decision-making skills about social, economic, and ecological issues. We have included useful classroom materials and activities that provide background information to support classroom instruction.

Through this material, students have the opportunity to learn about the Emerald Ash Borer and explore its impact on the environment in a very real and contemporary context. They will engage in science- and civics-focused conversations. They will come to understand that nothing happens within a vacuum and that there are implications and consequences associated with choice and decision. Our hope is that the information in this guide will help support teachers in their efforts to teach critical thinking skills and analysis to help their students learn to meet challenging problems in a constructive and proactive way.

Best regards,

Melissa Montague Shepson
Emerald Ash Borer Outreach Coordinator
Purdue University