



**TOMORROW'S
CANOPY**

**Please help us
plant and nurture
200 trees at
Crown Hill Cemetery**

**Newsletter
of the
Crown Hill
Heritage
Foundation
2015-2016**





Dear Friends of Crown Hill,

Less than half an inch long, the emerald ash borer wields powers that belie its size. At Crown Hill, this invasive insect pest has decimated 344 trees. To protect historic structures, family mausoleums, grave markers, cemetery and public roads, and, most, importantly, visitors to the cemetery, we must remove the trees that have fallen prey to this infestation.

The loss of these magnificent, stately old trees diminishes the cemetery's natural beauty, and will have far-reaching ramifications beyond the great expense of removing them. The Crown Hill Heritage Foundation's "**Tomorrow's Canopy**" initiative will help ensure that future generations continue to reap the aesthetic and quality-of-life benefits that Crown Hill's urban forest and tree canopy provide. The inaugural phase of "**Tomorrow's Canopy**" will plant 200 trees to commemorate Indiana's Bicentennial.

"**Tomorrow's Canopy**" holds urgent importance in fulfilling Crown Hill's mission *to preserve and celebrate the architectural, cultural, and natural heritage of the city's oldest urban green space*. In these newsletter pages, you'll learn more about the problem "**Tomorrow's Canopy**" addresses, the solution, and the need. It's a cause that deserves your support.

Crown Hill Cemetery is a unique and special treasure in the heart of Indianapolis. Our trees form a key component of the cultural landscape we protect. Through "**Tomorrow's Canopy**," we ask for your help in preserving Crown Hill's scenic wonders and their contribution to our community's habitat.

Best regards,

A handwritten signature in black ink that reads "Keith O. Norwalk". The signature is fluid and cursive, with a long horizontal line extending to the right.

Keith O. Norwalk
President and CEO

The pest



Adult emerald ash borers and an exit hole on an ash tree. Photos courtesy (top) Pennsylvania Department of Conservation and Natural Resources–Forestry; (center) David Cappaert, Michigan State University; (bottom) Kenneth R. Law, USDA APHIS PPQ; Bugwood.org

Agrilus planipennis, commonly known as the emerald ash borer, or EAB, takes its name from the combination of its distinctive coloration, the trees on which it feeds, and the way it damages them. It poses little threat to vegetation in its native habitat, where some ash trees show genetic resistance to it. In fact, until EAB invaded North America, this green jewel beetle excited little attention in the parts of Russia, China, Japan, and Korea in which it originates. The earliest western reports of it date to the late 19th century. In the 1870s, a French naturalist sent home an EAB specimen from a trip to China. A French entomologist published a brief description of the beetle in 1888.

EAB's core population concentrates in Michigan, the surrounding states and Canadian provinces. The insect reached North America in the 1990s in wooden packing materials brought to southeastern Michigan from Asia. As ash trees began to die from an unknown infestation, scientists finally identified EAB as the culprit in Canton, Michigan, in 2002. Quarantines on the shipment of ash wood across or outside North America have proven ineffective at minimizing the spread of an insect that can fly as well as hitch a ride in ash logs, firewood, and scrap wood.

EAB belongs to the family of Buprestidae, or metallic wood-boring beetles, which includes 52 other genera besides the genus *Agrilus*. A typical emerald ash borer specimen sports an iridescent green body. Its equally bright red abdomen appears only when the insect

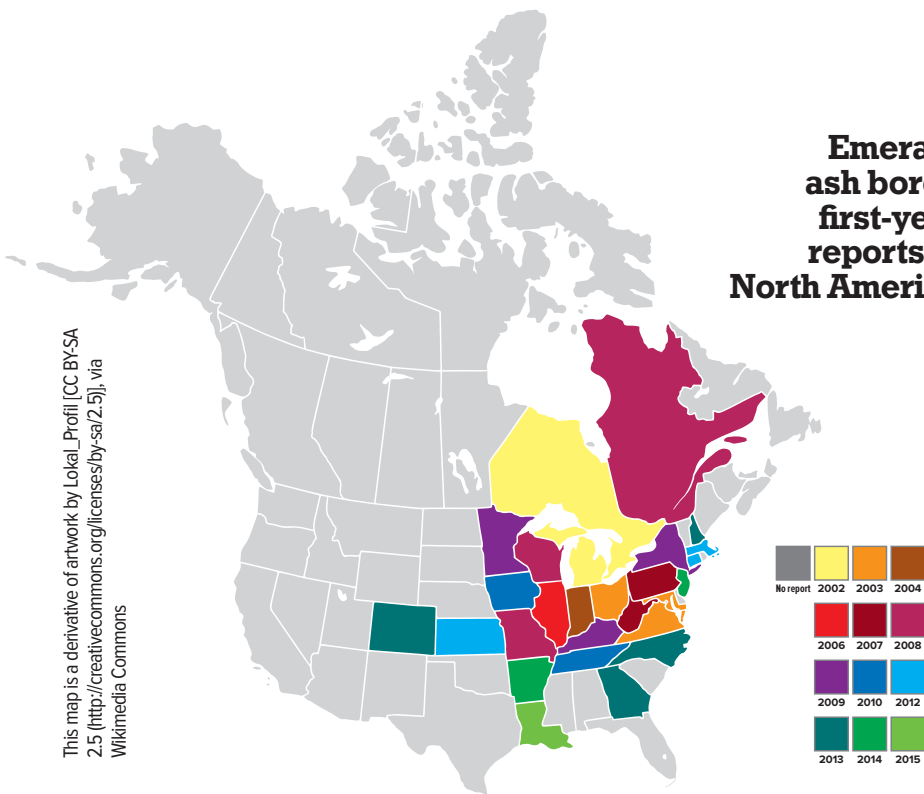
spreads its wings. EAB often gets mistaken for other Buprestidae or other Agrilus species, all of which can have similar coloration or shapes.

EAB lays eggs in cracks and crevices of the bark of ash trees and other species growing near them. Its larvae hatch and chew into ash bark, creating serpentine feeding tunnels that prohibit a tree from distributing nourishment throughout its trunk and branches. As adults, the beetles chew their way out, leaving D-shaped exit holes in bark, and move on to continue the life cycle of this invasive pest. Despite ongoing research into prevention and treatment, the devastation continues.



Feeding tunnels. Photo courtesy Troy Kimoto, Canadian Food Inspection Agency, Bugwood.org

Emerald ash borer, first-year reports in North America



This map is a derivative of artwork by Lokal_Profil [CC BY-SA 2.5 (<http://creativecommons.org/licenses/by-sa/2.5/>)], via Wikimedia Commons



Natural beauty and cleaner air

Trees help produce oxygen and remove the airborne compounds that cause climate change—for example, vehicle emissions and the byproducts of energy production—from the air. On the leaves of trees, tiny windows called stomata absorb carbon dioxide. Trees retain the carbon in their roots, trunks, and branches, and release the oxygen back into the air. Trees absorb greenhouse gases such as carbon monoxide, nitrogen dioxide, and sulfur dioxide. Trees trap airborne particles such as dust and lead on their bark and the surfaces of their leaves. In one year, one tree removes 10 pounds of pollutants from the air and produces enough oxygen for two people. In one day, one large tree can produce enough oxygen for four people. Cleaning the air of particulate matter helps reduce health risks to the lungs and heart.

In cities, trees help keep overall air temperatures down. Without trees, cities turn into islands of heat-producing and heat-storing materials. Buildings and roads retain heat, and can contribute to rising temperatures. The moisture that evaporates from trees helps reduce air temperature. Lowering air temperatures helps reduce the emission of many pollutants. Trees also help reduce the destructive force of wind.

Trees help reduce the amount of rainwater that runs off after a storm, and increase the amount of groundwater available to nourish other plants. They also help reduce pollutants in stormwater runoff.

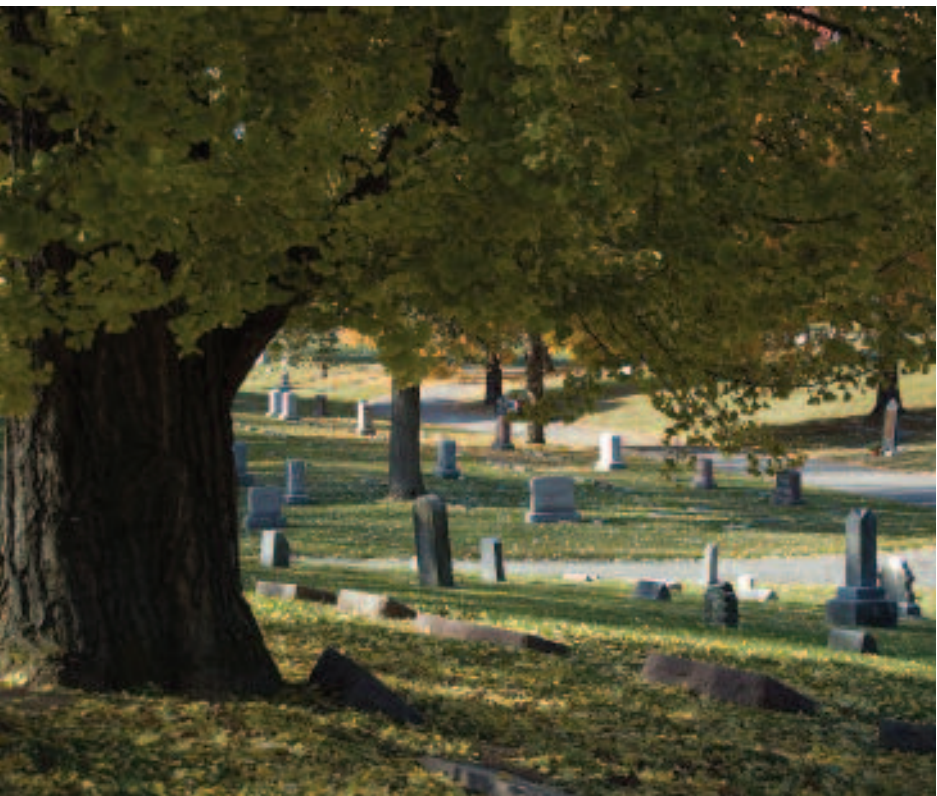
Trees provide natural habitats for birds, squirrels, bees, and other wildlife. On their branches and in their canopies, animals build nests and raise their young.

Trees add beauty. Their seasonal changes, the details of their leaves and bark, the soft rustling of their branches in the breeze: All these qualities make trees attractive in a way that raises spirits at the same time that it increases property values and even helps reduce the violence that can spring up in barren areas.

Tomorrow's Canopy: Planned plantings

The Crown Hill Heritage Foundation holds as its mission “*to preserve and celebrate the architectural, cultural, and natural heritage of the city’s oldest urban green space, Crown Hill Cemetery.*” In furtherance of that mission, the Heritage Foundation embarks on the “**Tomorrow’s Canopy**” initiative, designed to plant new trees to help offset the emerald ash borer’s devastation.

In collaboration with **Keep Indianapolis Beautiful** and **Blue Marble Design**, the Crown Hill Heritage Foundation will conduct an inventory of the current urban forest at Crown Hill, analyze the current tree population, and produce a planting plan. This plan will identify the sections of the cemetery that serve as ideal locations in which to plant new trees. The plan also will determine which species of trees make the best choices for specific planting locations.







Tomorrow's Canopy: Bicentennial trees

In addition to preserving and enhancing the natural environment at Crown Hill, “**Tomorrow's Canopy**” commemorates Indiana's bicentennial.

On June 28, 2016, Crown Hill and the **Indiana Archives and Records Administration** will hold a graveside service to celebrate the life of **Robert Hanna**, one of the signers of the first Indiana State Constitution in 1816. In addition to the laying of a wreath and remarks from honored guests, the program will include the ceremonial planting of three elm trees celebrating the Constitution Elm under which delegates gathered in Corydon on their way to meet at the Indiana Constitutional Convention. The names of all non-anonymous donors to the “**Tomorrow's Canopy**” initiative will appear in the printed program honoring Robert Hanna, and copies of the program will be entered into the State archives.

1816: Indiana Statehood

After the U.S. Congress passed an enabling act on May 6, 1816, allowing Indiana to join the Union, 43 men representing all but two of the Indiana Territory's 13 counties met in Corydon, the territorial capital, to craft a state constitution. On June 29, 1816, after meeting for 20 days, the delegates signed



the Constitution and submitted it to Washington, D.C. Although the Constitutional Convention of 1851 produced a document that superseded the 1816 version, the 43 signers of the original constitution established Indiana's anti-slavery status. On December 11, 1816, Indiana became the 19th state. More than 100 years later in 1917, the Indiana State flag originated as the winner of a public contest to design a state banner at the time of the Indiana centennial.

Visit <<http://www.in.gov/iara/3157.htm>> for additional information about all the Constitutional Convention delegates and ceremonies commemorating them.

Robert Hanna, U.S. Senator from Indiana



Among the 43 original signers of the 1816 Indiana constitution, Robert Hanna was born in South Carolina on April 6, 1786, and settled in Brookville, Indiana, in 1802. After serving as sheriff of the Eastern District from 1809 to 1811 and sheriff of the common pleas court from 1811 to 1820, Hanna became a member of the State constitutional convention in 1816. He later served as registrar of the Indiana Land Office.

Governor Noah Noble appointed Hanna to fill out the term of Indiana's first U.S. Senator, James Noble, who died in office on February 26, 1831 in the midst of his third term. Hanna served in the Senate from August 19, 1831, to January 3, 1832. After his Senate service ended, Hanna was elected to the Indiana House and the Indiana Senate. He died in a train accident on November 16, 1858, in Indianapolis. After Crown Hill Cemetery opened in 1863, Hanna's remains were reinterred in Section 2, Lot 131, on July 22, 1864.







Tomorrow's Canopy: Planting trees

The Crown Hill Heritage Foundation's **"Tomorrow's Canopy"** initiative continues beyond the bicentennial ceremony honoring Robert Hanna and the Constitutional Elm.

In the fall of 2016, in collaboration with **Keep Indianapolis Beautiful**, Crown Hill will plant 100 trees in cemetery sections identified through the tree inventory and analysis conducted earlier in the year. In the fall of 2017, **"Tomorrow's Canopy"** will plant an additional 100 trees.

In conjunction with the planting program, funds raised to fulfill the mission of **"Tomorrow's Canopy"** will be used to purchase 200 Indiana Bicentennial trees, and to hire crews of young workers to provide care for the new plantings, including watering and mulching.



Tomorrow's Canopy: Our partners

Keep Indianapolis Beautiful

Founded in 1976 as Indianapolis' Clean City Committee, Keep Indianapolis Beautiful, an affiliate of Keep America Beautiful, has helped plant more than 40,000 trees throughout Marion County. With a mission to engage diverse communities to create vibrant public places, helping people and nature thrive, KIB supports approximately 500 community improvement initiatives every year with the assistance of more than 1,000 individual donors and 30,000 volunteers. Its projects involve neighborhoods, civic government, community groups and local businesses.

Blue Marble Design

Launched in 2009 by landscape architects M.J. Meneley and Randy Royer, Blue Marble Design began as an entrepreneurial side project and grew into a firm that approaches environmental improvements as an art. Blue Marble seeks to find and reveal the beauty in every site.

Indiana Archives and Records Administration

The Indiana Archives and Records Administration, or IARA, helps manage records for State and local governments through county commissions of public records. Its focus lies on applying cost-effective, efficient, secure services throughout the life cycle of records. IARA is headed by the Director and State Archivist. Its divisions include the State Archives, Records Management, Forms Management, State Imaging and Microfilm Laboratory, and the State Records Center.





Tomorrow's Canopy: Please join us

The Crown Hill Heritage Foundation, a 501(c)(3) not-for-profit organization, seeks to raise \$60,000 to fund **“Tomorrow's Canopy.”** These funds will be used to purchase, plant, and nurture 200 Indiana Bicentennial trees.

“Tomorrow's Canopy” combines numerous goals into one community centered initiative.

- It seeks to overcome and offset the devastation wrought by the emerald ash borer on nearly 350 of Crown Hill's precious trees.
- It commemorates the Indiana Bicentennial and the natural features associated with the creation of Indiana's first State Constitution.
- It honors one of the 43 signers of the 1816 Indiana Constitution.
- It helps uphold the mission of the Crown Hill Heritage Foundation “to preserve and celebrate the architectural, cultural, and natural heritage of the city's oldest urban green space, Crown Hill Cemetery.”

Please join us to help beautify, protect, and preserve the natural beauty of Crown Hill Cemetery and its positive impact on the Indianapolis community. Your gift is tax deductible to the fullest extent allowed by law.







- Yes!** I would like to help Crown Hill Cemetery's **Tomorrow's Canopy** initiative with a tax-deductible contribution of:
- \$1,000 \$500 \$250 \$100 \$50 \$25 Other _____
- I intend to include Crown Hill in my will.
- I intend to donate online at <<https://www.gofundme.com/200Trees4CrownHill>>.

Name _____

Address _____

City _____ State _____ ZIP _____

Telephone (_____) _____

E-mail _____@_____

My gift is made in memory of _____ Please do not include my name on any published donor list.

Check payable to **Crown Hill Heritage Foundation**. Mail to: Crown Hill Heritage Foundation, 700 West 38th St., Indianapolis, IN 46208.

Credit Card VISA MasterCard American Express Other _____

Card number _____ Exp. date _____ / _____ Verification code _____

Visit [gofundme.com/200Trees4CrownHill](https://www.gofundme.com/200Trees4CrownHill) to make an online gift. It's safe, easy, and convenient. Share the link with family and friends!

TEAR AND SHARE WITH A TREE LOVER!