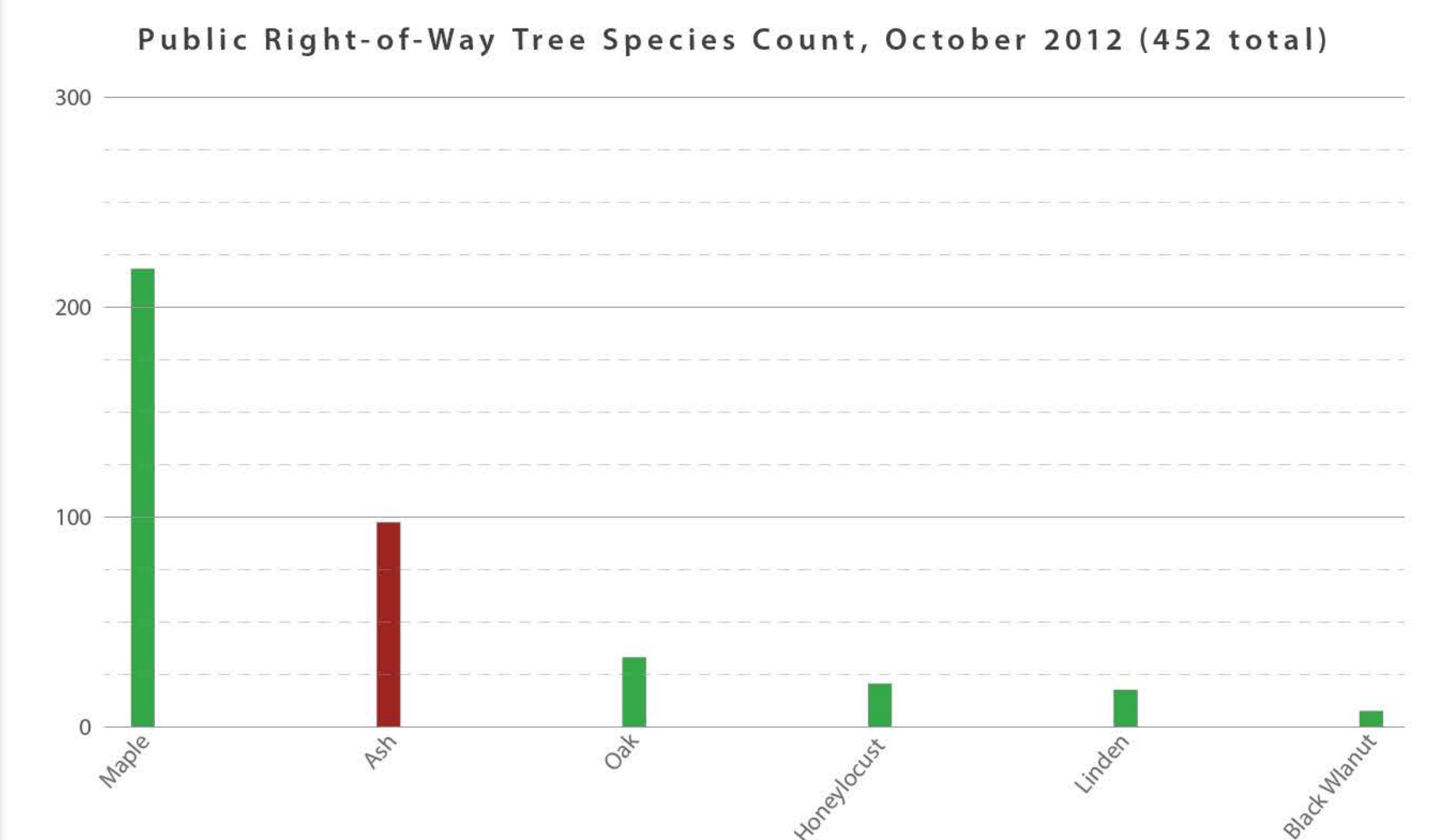




The Urban Forest

The map on the left depicts public right-of-way trees that have been surveyed by the Iowa Department of Natural Resources (Iowa DNR).¹ The trees are divided into three categories: healthy trees, hazard trees, and ash trees. Hazard trees were determined using the Iowa DNR's priority rating. The ratings range from one to seven; trees with a rating of six or seven were classified as hazard trees.^{**} A six rating is indicative of a tree that is "dangerous, dead, or dying, and no amount of maintenance will increase longevity or safety." A seven rating means there are "insects, pathogens, or parasites present and detrimental to tree longevity; treatment should be given to maintain longevity." Ash trees have been identified specifically due to imminent threats from the Emerald Ash Borer (EAB),* an invasive highly destructive beetle that has already killed tens of millions of ash trees in North America.² EAB was first discovered in Iowa in 2010 and has been confirmed in 30 Iowa counties and counting.³



The bar graph above depicts the breakdown of the tree species surveyed by the Iowa DNR. Take note of the large number of ash and maple trees. Increasing species diversity in the urban forest will make it more resilient should a new exotic bug or plant disease emerge. There is a strong possibility that 21% (96 ash trees) of Stuart's city owned trees will die once EAB becomes established in the community. With proper planning and management, the costs of removing dead and dying trees can be extended over years, mitigating public safety issues.

Map Source: data courtesy of the Iowa Department of Natural Resources Community Tree Inventory program, <http://www.iowadnr.gov/Conservation/Forestry/Urban-Forestry/Community-Tree-Inventories>

¹ Iowa Department of Natural Resources Community Tree Inventories, <http://www.iowadnr.gov/Conservation/Forestry/Urban-Forestry/Community-Tree-Inventories>
² EAB is a significant threat to our urban, suburban, and rural forests because it kills stressed and healthy ash trees. EAB is so aggressive that ash trees may die within two or three years after they become infested. Ash trees are as important ecologically as they are economically in the forests of the eastern United States. Emerald Ash Borer the Green Menace. USDA Program Aid No. 1769, 2008, https://www.aphis.usda.gov/publications/plant_health/content/printable_version/EAB-GreenMenace-reprint-June09.pdf.
³ "Iowa Tree Pests website," Entomology and Plant Science Bureau of the Iowa Department of Agriculture and Land Stewardship (IDALS), last updated February 9, 2016, http://www.iowatreepests.com/eab_home.html.

Stuart

Urban Forestry Conditions

Iowa State University: Julia Badenhop, Sandra Oberbroeckling, Matthew Gordy, Jessica Adiwijaya, Miao Fangzhou, Anh Le, Katherine Gould, Evan Kay, Richard Garcia
 Iowa Department of Transportation — Trees Forever — ISU Landscape Architecture Extension — ISU Extension Community and Economic Development