

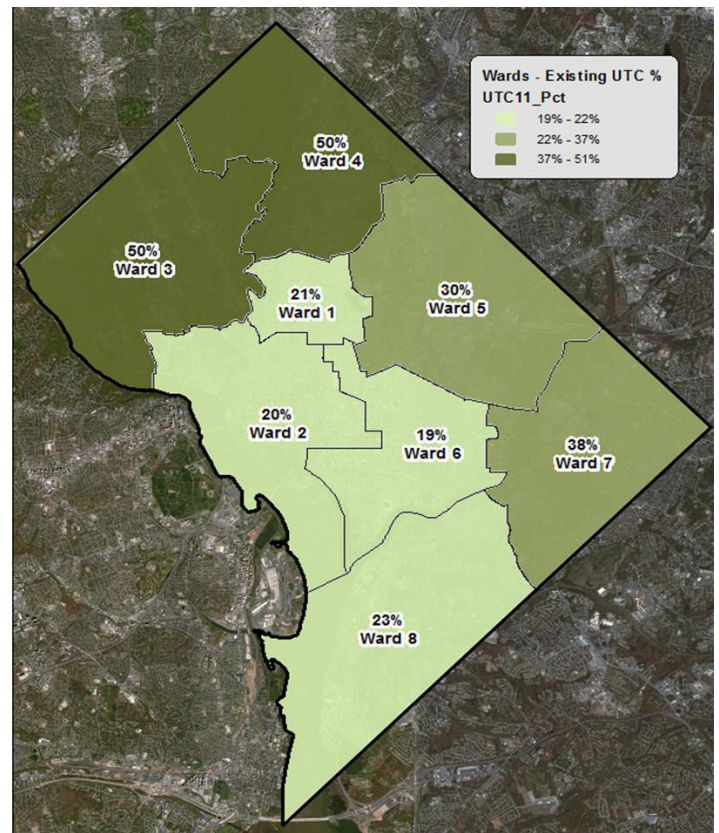


2015 Forest Health DISTRICT OF COLUMBIA highlights

Forest Resource Summary

The District of Columbia occupies a land area of 39,072 acres. The urban forest in Washington, DC, consists of forested areas located on private, Federal, and State land. These areas are managed by private landowners, Federal agencies, and the District of Columbia. Three District agencies manage lands that contain forested areas: Department of Energy and the Environment, Department of General Services, and Department of Transportation. The Urban Forestry Administration (UFA) of the District Department of Transportation (DDOT) manages all public street trees and also administers the Urban Forest Preservation Act of 2002, which regulates the removal of mature trees from private property.

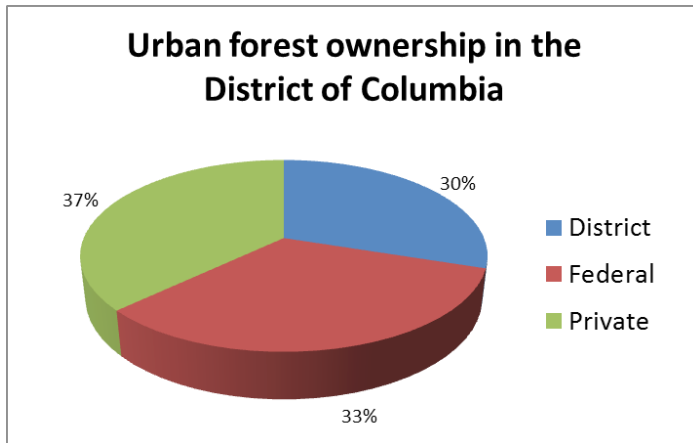
Urban Tree Canopy by Ward in 2011



Existing urban tree canopy (expressed as a percent) in the eight wards of Washington, DC.



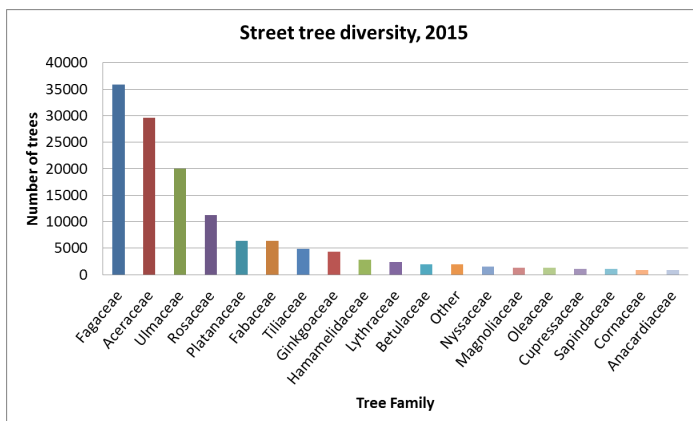
Urban Forest Ownership



Forest Inventory

Street Tree Diversity by Family

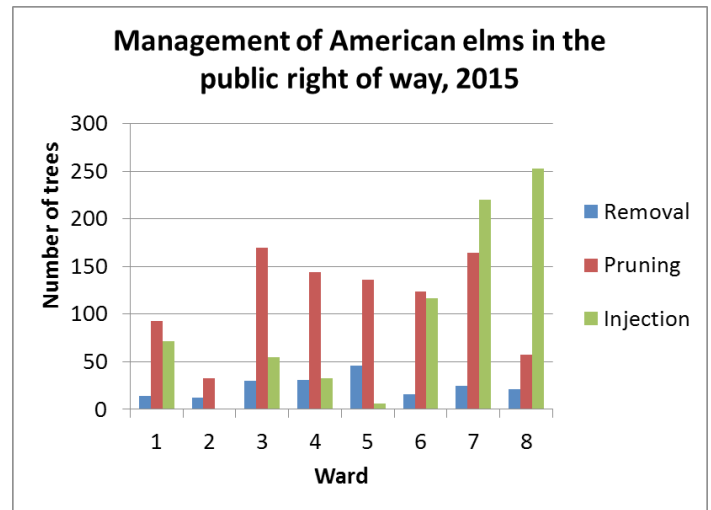
Diversity among street trees is quite high, as shown in the accompanying graphic. The “Other” grouping is comprised of 15 tree families, each constituting less than 0.5 percent of the total street tree inventory. Across the District, individual tree families make up no more than 30 percent of the total proportion of street trees. However, at the Ward level, the Fagaceae family consists of slightly greater than 30 percent of the street trees in Wards 3 and 4.



Diversity of street trees in the District of Columbia in 2015 by tree family.

Components of Change

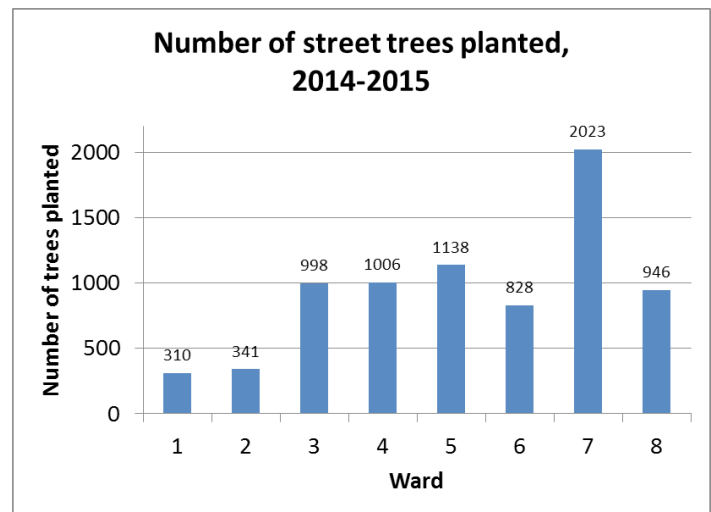
Dutch Elm Disease Removals



Management of American elms in the public rights-of-way in the District of Columbia in 2015.

Planting

Each year UFA plants several thousand trees in the public right-of-way in support of reaching the 40 percent urban tree canopy goal by 2032.



Number of street trees planted in the District of Columbia from 2014 to 2015 by ward.

Forest Health Issues

Exotic or Novel Pest Introductions

Early Detection Rapid Response

In 2015, DC began its first year participating in the U.S. Forest Service Early Detection Rapid Response Program. In the spring UFA established one trapping site located in an area at high risk of exposure to non-native pests. Highlights from the inaugural trapping include confirmation of the presence of an exotic ambrosia beetle, the camphor shot borer (*Cnestus mutilatus*). This is the first record of *C. mutilatus* in the District of Columbia. A total of 18 bark and ambrosia beetle species were observed throughout trapping, 33 percent of which were not native.



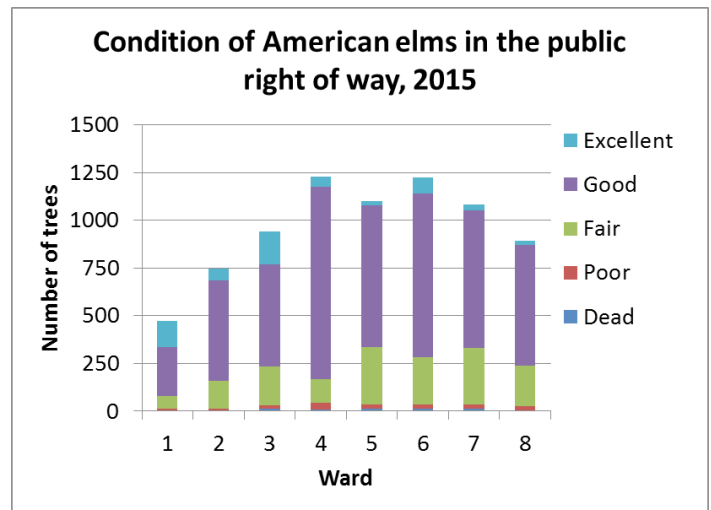
Cnestus mutilatus female. (Photo: Doug Stone, Mississippi State University, Bugwood.org)

In the District, the camphor shot borer has been observed in traps baited with ethanol and also in street trees, specifically a red maple (*Acer rubrum*). This exotic ambrosia beetle is native to Asia and was first reported in Mississippi in 2004 (Schiefer and Bright 2004). The camphor shot borer has a wide host range of 20 families, which include Aceraceae, Cornaceae, Fagaceae, and Rosaceae (Stone and others 2007). Like many non-native ambrosia beetles, they usually attack stressed trees.

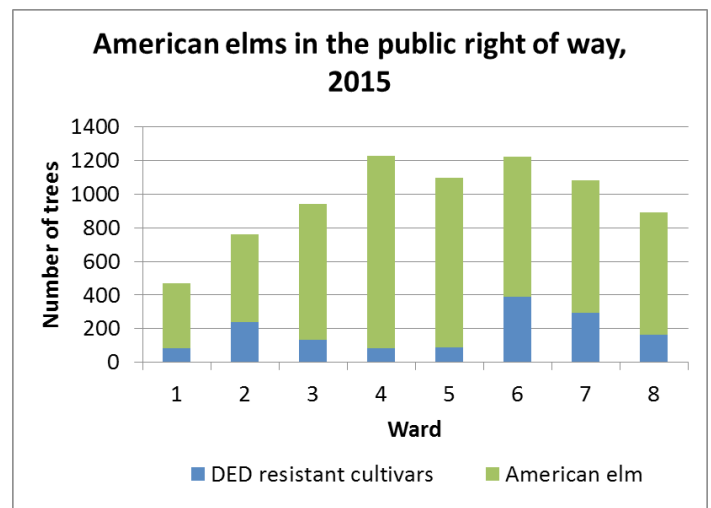
Ongoing Efforts

Dutch Elm Disease

American elms are iconic trees in the District of Columbia. They line many of the state avenues and form a beautiful closed canopy over the west-bound approach to the Capitol building. Unfortunately, American elms in the District are also subject to Dutch elm disease (DED). UFA employs a diverse arsenal to manage DED, including the use of fungicide injections, sanitation pruning, and expedited removal of infested specimens. In addition, new plantings include DED-resistant cultivars.



Condition of American elms in the public right-of-way in the District of Columbia in 2015.



Diversity of American elms in the District of Columbia right-of-way in 2015.

Emerald Ash Borer

Emerald ash borer was first observed in the District in 2013. Fortunately, the street tree inventory consists of very few ash trees—less than 1 percent of all trees in the public right-of-way. Following the discovery of live emerald ash borer in 2014, UFA began tracking observations of emerald ash borer in street trees and ash trees located on other District-owned properties. To date, emerald ash borer has been observed in six out of eight District Wards. UFA expedites the removal of any District-owned ash trees known to be infested with EAB.

The overall urban forest in the District contains a greater proportion of ash trees compared to the street tree inventory, particularly in riparian areas such as Kenilworth Aquatic Gardens. An i-Tree analysis indicates that the urban forest is comprised of approximately 5,000 ash trees, making up 1.9 percent of all trees in the District (Nowak and Hoehn 2010).



Flaking bark on an ash tree indicates feeding by woodpeckers on emerald ash borer larvae. This ash tree is located in southeast DC in Oxon Run Park.

Additional Pests and Pathogens

There are a variety of additional pests observed on street trees in the District of Columbia. *Scolytus rugulosus* has been observed on numerous species of cherry street trees such as *Prunus x yedoensis* and *Prunus virginiana*. This species was also observed in ethanol-baited traps as part of the Early Detection Rapid Response program in the spring of 2015.

Scale insects are often observed, particularly on maple and oak street trees. In particular, oak lecanium scale are prevalent on willow oak trees. Both young and mature willow oaks may sustain heavy infestations of oak lecanium scale, often identified by the appearance of sooty mold.



Scale observed on a willow oak in the public right-of-way.

Anthracnose is present in the District and was observed in street trees such as sycamore and London plane trees in the late summer. Bacterial leaf scorch (BLS) was also observed in a variety of street trees during the summer, though testing was not conducted for BLS in 2015. Bacterial leaf scorch is most prevalent in such District street trees as red oak (*Quercus rubra*), pin oak (*Q. palustris*), American elm (*Ulmus americana*), and sycamore (*Platanus occidentalis*) (Harris and others 2014).

Urban Tree Canopy Map

Hanou, I. 2011. Urban tree canopy assessment, District of Columbia, 2006-2011. Plan-It Geo, LLC, Arvada, CO.

References

- Harris, J.L.; Di Bello, P.L.; Lear, M.; Balci, Y. 2014. Bacterial leaf scorch in the District of Columbia: distribution, host range, and presence of *Xylella fastidiosa* among urban trees. *Plant Disease*. 98: 1611–1618.
- Nowak, D.J.; Hoehn, R.E. 2010. *i-Tree Ecosystem Analysis*, Washington DC. Newtown Square, PA: U.S. Department of Agriculture, Forest Service, Northern Research Station.
- Schiefer, T.L.; Bright, D.E. 2004. *Xylosandrus mutilatus* (Blandford), an exotic ambrosia beetle (Coleoptera: Curculionidae: Scolytinae: Xyleborini) new to North America. *The Coleopterists Bulletin*. 58(3): 431–438.
- Stone, W.D.; Nebekker, T.E.; Gerard, P.D. 2007. Host plants of *Xylosandrus mutilatus* in Mississippi. *Florida Entomologist*. 90(1): 191–195.



Forest Health Programs

State forestry agencies work in partnership with the U.S. Forest Service to monitor forest conditions and trends in their State and respond to pest outbreaks to protect the forest resource.

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