Trees in New York City

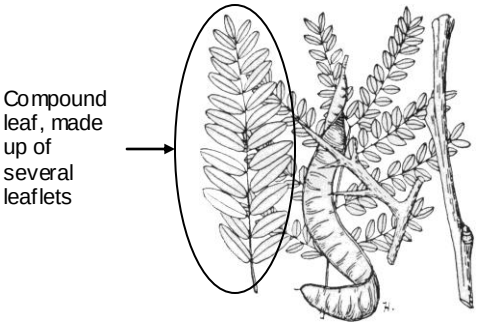
Did You Know?
According to the NYC Tree Census (2005-2006), the five most commonly found street trees in New York City are deciduous, hardwood trees. They are:
London plane tree (15.3%),
Norway maple (14.1%),
Callery pear (10.9%),
Honeylocust (8.9%),
Pin oak (7.5%).

2005-2006 Tree Census Facts

- Citywide, the tree population grew by almost 19% from the last census done in 1995-1996.
- The borough with the largest increase in trees is Staten Island (32.5%), followed by Brooklyn (27%), then the Bronx (25%).
- In the Bronx and Manhattan, honeylocust is the most commonly found street tree (12.9% and 23.3% respectively).
- 592,000 trees from 168 different species were counted in the census, but just 10 species accounted for 74% of these trees.
- The Bronx had the highest number of trees in categorized as poor and dead (12%), followed by Manhattan (11.3%), then Queens (10%).

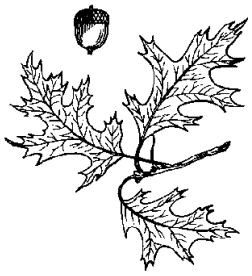
Origin
Of the 5 most common trees, only honeylocust and pin oak are native to the United States. Pin oak is the only one that is native to the New York City area. Callery pear is an Asian native, while London plane tree and Norway maple originated in Europe.

Identification
Leaves can help to identify a tree. Tree leaves may be simple or compound. Simple leaves consist of one leaf blade, while compound leaves are comprised of two or more leaflets. The position of leaves on a stem may be alternate or opposite. Although leaves of Norway maple and London plane tree look similar, Norway maple has opposite leaf arrangement while London plane has alternate leaf arrangement. The fruit of a tree can also help with identification. Honeylocust fruit is a pod, Pin oak fruit is an acorn and Callery pear fruit is a very small pear. Norway maple fruit resembles wings and London plane tree fruit is dry and round. Some Honeylocust trees have thorns on their stems. The thornless variety is recommended for street trees.

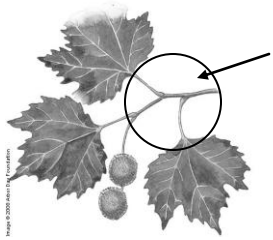


Honeylocust: compound leaves, alternate leaf arrangement; pod fruit

Callery pear: simple leaves, alternate leaf arrangement; small pear fruit



Pin oak: simple leaf, alternate leaf arrangement; acorn fruit



London plane tree: simple leaves, alternate leaf arrangement; dry, round fruit

Norway maple: simple leaves, opposite leaf arrangement; winged fruit

Pros and Cons of Common New York City Street Trees

Tree	Pros	Cons
Norway maple (*Acer platanoides*)	○ Grows in most soils ○ Drought-tolerant ○ Tolerates air pollution ○ Resistant to salt injury from road de-icers ○ Provides shade and has good fall color	○ Prevents the regeneration of native sugar maples by shading out the seedlings ○ Competes with other landscape plants ○ Its shallow root system can cause damage to pavement
Callery pear (*Pyrus calleryana*)	○ Beautiful, white flowers in early spring ○ Tolerant of heat ○ Drought-tolerant ○ Tolerant of compacted soils	○ Believed to be invasive in some areas of the East Coast ○ Brooklyn Botanic Garden lists it as a species to watch
Honeylocust (*Gleditsia triacanthos*)	○ Tolerant of wet and dry conditions ○ High tolerance for salt, found in road de-icers ○ Small leaflets are easy to clean in the fall ○ Provides light shade, which helps shade tolerant turf and partial shade perennials grow	○ Overplanted, reduces diversity ○ Susceptible to several pest and disease problems
Pin oak (*Quercus palustris*)	○ Tolerant of wet conditions ○ Tolerant of some drought ○ One of the faster growing oaks	○ Lower limbs grow downward and require pruning if used as a street tree ○ Choose 'Crownright' for an upright growth pattern
London plane tree (*Platanus* x. *acerifolia*)	○ Attractive, "peely" bark ○ Pollution-tolerant ○ Somewhat tolerant of salt ○ Tolerant of both wet and dry soil conditions ○ Elegant street tree if given enough space	○ Roots can crack and heave sidewalks ○ Roots invade sewer lines

Biodiversity and the Urban Forest

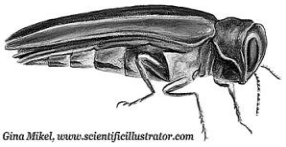
An urban forest includes trees in parks, forests, and gardens and along streets within an urban area. Biodiversity is the variety of living things on Earth. It includes ecosystem diversity (some examples of ecosystems are temperate forest, grassland, wetland, desert), species diversity within ecosystems, and genetic diversity within species. Having a variety of trees in an urban forest encourages biodiversity, which leads to healthier, balanced ecosystems. In a balanced ecosystem, a single insect or disease is less likely to cause wide-spread damage.

Two insect pests currently threaten our urban forests - the **Asian longhorned beetle (ALB)** and **Emerald Ash Borer (EAB)**. These insects are not native to the United States and cause a lot of damage to forests since they have no natural enemies (other insects or diseases) in this country to control their populations.

Asian Longhorned Beetle

ALB was first found in the US in 1996, in the New York City neighborhood of Greenpoint, Brooklyn. It has since been found in Queens, Manhattan and Staten Island. ALB tunnels through the vascular system of certain trees, eventually killing them. These trees include hardwoods such as maple, horsechestnut, elm, willow, birch, poplar, and ash. Almost 31% of our street tree species are susceptible to the ALB. The most effective way to control this pest is to remove affected trees and destroy that plant material. State and federal quarantines prevent the movement of infested wood. It is recommended that residents of New York City avoid planting trees susceptible to infection by ALB.

EAB was first discovered in Michigan in 2002. It has since been found in Ohio and Pennsylvania. There are reports that EAB has been found just ten miles outside of Western New York State. EAB attacks ash trees only, interfering with water and nutrient transport in the tree, eventually killing it.



Emerald Ash Borer

For a list of recommended trees for the urban environment, visit Cornell's Urban Horticulture Institute at http://www.hort.cornell.edu/uhi/
Request a street tree from the NYC Dept. of Parks:
http://www.milliontreesnyc.org/html/involved/request_a_tree.shtml
For more information on ALB in New York City:
http://www.nycgovparks.org/sub_your_park/trees_greenstreets/beetle_alert/beetle_alert.html
Contact 1-800-201-PARK for the most recent information on the New York ALB quarantine.
For more information on EAB: http://www.emeraldashborer.info/