



Common name: **American Beech**

Genus Species: ***Fagus grandifolia***



Photo credit: Joseph O'Brien
USDA Forest Service, Bugwood.org

Description: American beech is a deciduous tree, 65 to 130 feet tall, with deep green leaves. Its inconspicuous green male and female flowers are separate, though both are found on the same tree.

Habitats: American beech grows in moderately moist deciduous forests with deep, rich, well-drained soils, and is very tolerant of shade. It is common in ravines and small valleys, on slopes, and bordering streams or springs.

Phenology highlight: The dark-green glossy leaves turn copper-colored in autumn and often remain on the tree for most of the winter.

Species facts

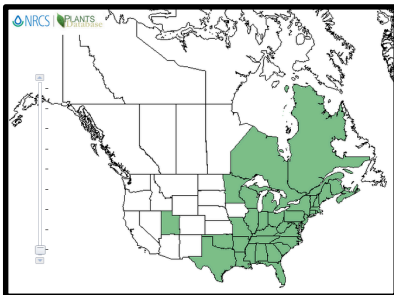
- American beech is wind-pollinated.
- It is a larval host for the early hairstreak butterfly.
- American beech was the tree most associated with the extinct Passenger Pigeon, which fed on its nuts and roosted in its branches.
- Beech nuts are eaten by many forms of wildlife as well as by people.
- Native Americans used this plant for many ailments.
- In colonial times, beech wood was used to make water wheels, due to its resistance to decay under water.



Photo credit: Chris Evans
Illinois Wildlife Action Plan, Bugwood.org

Why observe this species? American beech is a USA-NPN calibration plant species. Calibration species have broad distributions and are ecologically or economically important. The NPN integrates observations on calibration species to get the big picture of plant responses to climate change across the nation. In addition, this species is an allergen. Observations provide valuable information to people with allergies and to the public health community.

Tips for observing this species: The male inflorescence is a catkin, which is initially compact, but grows fuller and fluffier. Female flowers are small and lack petals, emerging at the point where a new leaf is attached.



Map credit: USDA, NRCS. 2014. The PLANTS Database <http://plants.usda.gov>, 25 March 2015). National Plant Data Team, Greensboro, NC 27401-4901 USA

For more information about phenology and the New York Phenology Project (NYPP), please visit the NYPP website (www.nyphenologyproject.org) and the USA-NPN website (www.usanpn.org).



American Beech (*Fagus grandifolia*)

Note: leaf, flower and fruit phenophases are nested so you may need to record more than one phenophase for each; for example, if you record **Y** for "open flowers" you should also record **Y** for "flowers or flower buds."



Breaking leaf buds

One or more breaking leaf buds are visible. A leaf bud is "breaking" once a green leaf tip is visible at the end of the bud, but before the first leaf has unfolded to expose the leaf stalk (petiole) or leaf base.



Leaves One or more live, unfolded leaves are visible. A leaf is "unfolded" once its entire length has emerged from a breaking bud, so that the leaf stalk (petiole) or leaf base is visible at its point of attachment to the stem. Do not include fully dried or dead leaves.



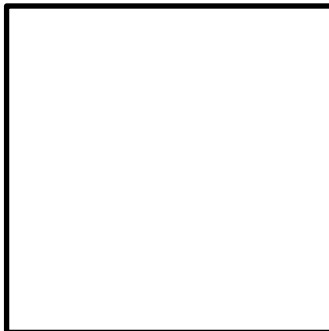
Increasing leaf size

A majority of leaves on the plant have not yet reached their full size and are still growing larger. Do not include new leaves that continue to emerge at the ends of elongating stems throughout the season.



Colored leaves

One or more leaves (including any that have recently fallen from the plant) have turned to their late-season colors. Do not include fully dried or dead leaves that remain on the plant.



Flowers or flower buds

One or more fresh open or unopened catkins (male) or small flowers or flower buds (female) are visible. Include flower buds that are still developing, but do not include wilted or dried flowers or catkins.



Open flowers One or more open, fresh flowers are visible. American beech male flowers are open when catkins lengthen and stamens protrude. Female flowers are open when pistils are visible, but these are very difficult to see where they are out of reach.



Fruits One or more fruits are visible on the plant. For American beech, the fruit is a nut covered by a spiny husk (bur) that changes from green to brown or reddish-brown. Do not include empty husks.



Ripe fruits One or more ripe fruits are visible on the plant. American beech fruit is ripe when the husk has turned brown or reddish-brown and split open to expose the two nuts. Do not include empty husks.

Phenophases not pictured: **Falling Leaves** and **Recent Fruit or Seed Drop**