

American Hornbeam

Carpinus caroliniana

Common name:

American Hornbeam, Ironwood, Blue Beech, Water Beech

Pronunciation:

kar-PI-nus ka-ro-lin-i-A-na

Family:

Betulaceae

Genus:

Carpinus

"...[A] tree recognizable on sight by its beautiful fluted stems and braches. Each trunk and bough is spiraled with low, rounded, broad ridges that look like twisted muscles."

(excerpt from Donald Culross Peattie, A Natural History of Trees of Eastern and Central North America)

Quick ID Tips

- Understory tree with smooth, gray, and slightly fluted bark that resembles flexed forearm muscles
- Leave margins with sharp, double teeth
- Flowers and fruits hang on branch ends in an involucre (a whorl or rosette of bracts surrounding flowers)

Details

- A broadleaf, deciduous tree of 30-55 ft. that is part of northern hardwood forest understory. The Hornbeam is often multi-stemmed and wide spreading and, at maturity, may be either flat or round-topped.
- Leaves are alternate, simple, ovate-oblong, 2-4 inches long, acuminate, sharply and doubly serrate, dark green in summer, yellowish, orange, to red in fall. Tufts of white hairs appear in the axils of the prominent yellow midribs (seen on the underside).
- Hornbeam has a crooked trunk and bark that is smooth, gray, and slightly fluted like flexed forearm muscles.
- Twigs have a zigzag pattern.
- Winter buds are ovate, acute, and chestnut brown.

- Male and female flowers appear in separate clusters (catkins) on the same tree. Female flowers have conspicuous 3-lobed leaf-like bracts and scarlet styles. Scales on the male catkins are green at bottom and red above the middle.
- Fruit is a small ribbed nutlet, enclosed by 3-lobed bract, borne in pairs. The fruits hang in pendulous clusters at the end of leafy branches.
- As an understory tree, the Hornbeam tolerates a wide range of soil conditions and can thrive in sun or shade. It is found along streams and rivers in its native range where it tolerates periodic flooding.
- The Io moth (*Automeris io*) feeds on its leaves.
- Hardy in USDA Zone Found from Nova Scotia to Minnesota, south to Florida and Texas.



leaf



leaves and fruit clusters



leaves and buds



fruit clusters in fall



fall colors



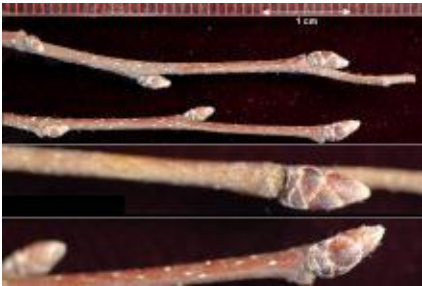
fall leaf color



fall leaf color



zigzag twigs



twigs and buds, winter



ropy, fluted bark

Sources:

- Oregon State University Landscape Plants
<https://landscapeplants.oregonstate.edu/plants/carpinus-caroliniana>
- David Sibley, *The Sibley Guide to Trees* (Knopf 2009)