

A Muscular Tree of Beauty

Perhaps I will never know the true answer, but when homeowners consider a small tree for their garden, Flowering Dogwood is typically the plant of choice. Of course, there are literally dozens of trees that mature to 25-30' in height and provide the size, form and floral interest of Flowering Dogwood, yet they remain undiscovered. One such "unknown tree" that needs far more recognition for its subtle and refined beauty is *Carpinus*, commonly called Hornbeam or Musclewood.

Carpinus is a member of the Betulaceae or Birch Family, containing upwards of 40 species worldwide. The genus name was officially assigned by Carl Linnaeus (1707-1778), and it is the original Latin name for the European species of Hornbeam. The root of *Carpinus* is the Latin *Karp* or stone, describing the very dense nature of the wood. Hornbeam, combines a reference to the wood's horn-like hardness while Beam is Old English for tree. The common name of Musclewood justly describes the undulating and muscular appearance of the dark gray stems as they age, often resembling the limbs of a professional body builder! A branch of *Carpinus caroliniana* is pictured below. *Carpinus* is a monoecious plant, with the male and female flowers appearing on separate dangling catkins on the same tree. The catkins often develop into 'hop-like' fruiting structures, with each individual bract of the catkins attached to a small nut, 3-6mm long (*Carpinus caroliniana* bracts and nuts are pictured on the left as they appear in late June). When the catkins

shatter come autumn, the bract serves as a wing, allowing the seed to spin and float to a new home!

Carpinus caroliniana is Native to Eastern North America, encompassing the area from Ontario to Texas east to northern Florida and Quebec – an area far larger than simply the Carolinas, as the species epithet alludes. The plants are typically an understory tree in the wild, but they will develop a denser form in full sun. This is also a tree for challenging sites! It endures areas that flood frequently and for extended periods of time, making it a good choice where soils are compacted and have minimal aeration. However, species are also found on well-drained upland soils! The female catkins provide interest from April through



October when they begin to shatter. The fall color varies from a clear yellow to a robust orange-red, with the best fall color appearing in full sun.

I have seen *Carpinus caroliniana* used as a hedge in several gardens, but the plant that is best suited for hedging is the European Hornbeam, *Carpinus betulus* (as pictured on the right at Wave Hill in NYC just after being trimmed). Native from Britain south throughout Europe and into Iran, this tree grows considerably larger than small tree stature, reaching upwards of 50-80' tall. The species epithet honors *Betula*, the genus for Birch, recognizing the resemblance of the leaf to that of a Birch. In youth, the tree is more upright and teardrop in form, but with age it broadens considerably, becoming almost spherical in shape. The branching habit maintains a rather upright appearance, which is especially attractive during the winter months. The form 'Fastigiata' has a decidedly more upright and slender form, while the selection 'Frans Fontaine' has an even more slender, upright form. With time, even these more columnar forms will broaden and become more egg shaped with age. The larger size of the plant also translates to an attractive and more enhanced muscular appearance of the bark!



However, in my opinion, the most attractive and elegant form for the home garden is *Carpinus japonica*, the Japanese Hornbeam. Growing to a more restrained 20-30' tall, the habit is an attractive vase-shape (pictured at left). This form allows the plants to blend

well when placed adjacent to each other or when used as a specimen. The foliage is also more refined, having a deep accordion-like venation which, with a touch of imagination, resembles an open Japanese hand fan. The catkins are far longer and larger in diameter than the aforementioned cousins, gradually changing from an attractive chartreuse in spring to green by mid-summer (as seen in June on the right). The bark is also muscle-like, with the peaks of the muscular ridges accentuated with



silver highlights as it ages.

Perhaps the refined beauty of Hornbeams is a bit more subtle than the impact of a flowering dogwood and that explains why Dogwoods are the small tree of choice for many homeowners. Or perhaps it is simply name recognition. Regardless, Hornbeams provide a wonderful grace that transcends all four seasons, making them a genus well worth investigating. For flower, form, fall color and incredible site tolerance, this is a muscular tree of beauty!