I grew up on a farm in northern Ohio, and there were two common horse chestnuts (Aesculus hippocastanum) in our front yard that provided much-needed shade from the intense summer sun. I remember sitting under them for hours, often with visiting relatives or just waiting for the temperature to drop so that I could retreat to my second-floor bedroom in our very solid (and hot) brick house.

The trees were quite messy, and how my grandparents ever came to plant them is a mystery. In the fall, many wheelbarrow-loads of fruits and leaves had to be raked and hauled off the lawn. I was not amused when my city cousins came to visit and remarked that the large, nut-like seeds made the most wonderful necklaces and “people” ever! (It’s easy to craft a human “head” by drawing eyes and other facial features on the round white scar at the base of each seed.)
Incidentally, the trees are still there 60 years later. Today, I know there are many more faces of *Aesculus*, and in the Pacific Northwest, some special ones stand out.

**Quick Look at the Genus**

The genus *Aesculus* is made up of 15 or so species of deciduous trees and shrubs from North America and Eurasia. The species hybridize readily, both in the wild and in cultivation, providing even more variation—and sometimes making identification tricky. Cultivars of some species are also available.

The *Aesculus* collection at Washington Park Arboretum currently features 81 trees and shrubs, comprising 12 species and 12 hybrids, varieties and cultivars. (The core collection is concentrated in the south end of the park, just west of Pacific Connections.) All *Aesculus* are prized for their handsome foliage and showy flowers. What’s more, they are relatively easy to grow, adapting well to most soil types.

In America, the native *Aesculus* are commonly called “buckeyes,” a name derived from the resemblance of the shiny seed to the eye of a deer. In the Old World, they’re called “horse chestnuts”—a name that arose from the belief that the trees were closely related to edible chestnuts (*Castanea* species), and because the seeds were fed to horses as a medicinal treatment for chest complaints and worm diseases. (The horseshoe-shaped scars left on *Aesculus* branches when the leaves drop may have also contributed to the origin of the common name.)

*Aesculus* is part of the Sapindaceae or soapberry family, which includes maples and lychees. It is only distantly related to the edible chestnuts, which reside in the Fagaceae or beech
family. The seeds of *Aesculus* are toxic to people, due to the presence of esculin and other chemical constituents.

The leaves of *Aesculus* are easy to recognize. Borne in pairs, they are divided palmately (that is, like a hand with fingers extended), usually into five or seven large leaflets. Just to keep you on your toes (or fingers), though, some *Aesculus* leaves have three, nine or eleven leaflets. In late spring and early summer, gorgeous upright panicles of flowers are borne at the end of *Aesculus* branches and are attractive to insects and hummingbirds.

Flower color varies from creamy white to yellow to red, depending on the species or variety. The flowers develop into thick, leathery and, in some cases, prickly fruits that split in autumn to reveal large, shiny, brown seeds. As an added bonus, some *Aesculus* also boast fiery fall colors.

Following are profiles of some of the buckeyes and horse chestnuts found in the Arboretum. All the plants perform well in our region.

*Aesculus hippocastanum* *(common horse chestnut)*

The most familiar member of the genus is, of course, the common horse chestnut (*Aesculus hippocastanum*). Native to northern Greece, Albania and Bulgaria, it is a stately tree that grows up to 60 feet tall and bears large, toothed leaves with five to seven leaflets. In late spring, spectacular stout “candles” of white flowers cover the foliage. These develop into spiky, two- to three-inch-wide fruit capsules with large seeds.

The tree has been widely cultivated in parks and gardens, and along streets, all over the world. In Ireland and Britain, children traditionally play a game called “conkers” with the seeds. The game requires two players, each with a conker threaded onto a piece of string. They take turns striking each other’s conker until one breaks.

A famous specimen was the Anne Frank Tree, which grew in the center of Amsterdam and was mentioned in Frank’s diary. It survived until 2010, when a heavy wind blew it over. Eleven saplings, sprouted from seeds of this tree, were transported to the United States and eventually found new homes at notable museums or U.S. institutions, including the National September 11 Memorial and two Holocaust remembrance centers.

The Arboretum has a number of fine specimens, including a double-flowering cultivar ‘Baumannii’ (located near the Viburnum collection) that doesn’t set fruit. (No conker cleanup required!) According to UW Botanic Gardens Curator Ray Larson, some specimens along Lake Washington Boulevard may date back to the Olmsted “Boulevard Era” (1903–1933), prior to the founding of the Arboretum.

One of Seattle’s more familiar plantings of *Aesculus hippocastanum* lines 17th Avenue NE in the University District, north of N.E. 45th Street. These trees have survived years of “attention” from hundreds of students.

*Aesculus pavia* *(red buckeye)*

The red buckeye, or firecracker plant, is a beautiful clump-forming woodland shrub from the Southeastern U.S. that thrives here in the Northwest but, sadly, is seldom seen. (The Arboretum has about a dozen of them, mostly in
the core collection near Pacific Connections.) It typically grows between eight and 10 feet high and produces five leaflets per leaf. Richly colored red flowers are held on large panicles in late May or early June and are magnets for hummingbirds. The fruit capsules that develop are smooth and about one to two inches wide.

Red buckeye has an irregular rounded crown. Some older gardens in the Northwest have grafted specimens with more consistently rounded crowns and pendulous branches. Several cultivars are available, including ‘Atrosanguinea’, featuring dark-red flowers, and ‘Humilis’, a low-growing, sometimes prostrate, shrub. Fall foliage of A. pavia is unremarkable. The plant does best in moist, well-drained soils and benefits from afternoon shade.

**Aesculus californica (California buckeye)**

Native to California and the Siskiyou area of southwestern Oregon, *Aesculus californica*, is the only West Coast member of the genus. In the wild, it can grow up to 40 feet tall, but it is more often found as a spreading shrub growing up to 15 feet tall. California buckeye often produces a distinct, flat-topped crown and is also noted for its smooth, silver-gray bark. The abundant leaves are usually split into five leaflets and have a shiny, almost metallic hue.

Flowering occurs in the summer here and often lasts for months at a time. Usually, a lone, fragrant, pure-white or light-rose flower will open at the top of each panicle first, and this flower will form a fruit at the same time that the other flowers begin to open. However, in some years, all the flowers open at once, creating a dramatic show that contrasts wonderfully with the deep-green foliage. The fruit capsules are smooth and pear-shaped and often hang on the plant after the foliage drops.

Adapted to dry slopes and canyons, California buckeye responds to summer drought stress in the wild by dropping its leaves. In the Northwest, if we get a hot, dry summer, the plant may strip itself naked in September. Usually though, the foliage will hold on into October, when it turns a handsome yellow color before falling.
The Arboretum has several specimens down at the south end, including three plants that date to the late 1950s.

**Aesculus × carnea (red horse chestnut)**

The red horse chestnut is of unknown origin. Most experts believe it to be a hybrid between the *A. hippocastanum* and *A. pavia*. It is thought to have originated in Germany and was known in the trade there as early as 1820. The plant’s origins have been the subject of much discussion, controversy, and even research, but regardless, it is a wonderful tree for gardens. That’s because it is shorter than the common horse chestnut, growing only up to 30 or 40 feet, and it has gorgeous red flowers. (The word *carnea* is Latin for “flesh-colored.”)

Several cultivars are available, including ‘Briotii’, which has a compact habit and darker red flowers compared to the straight species. (The Arboretum has a lovely specimen just south of the Plant Donations Nursery.) ‘Aureomarginata’ offers leaves with prominent golden–yellow margins.

**Aesculus glabra (Ohio buckeye)**

In its native Midwestern and lower Great Plains habitat, the Ohio buckeye can reach up to 70 feet tall and develop a rough, fissured trunk. In the Northwest, however, it usually remains a shrubby plant, only getting up to about 20 feet tall. The leaves of this species are usually divided into five leaflets, and in the fall they turn a striking yellow, with shades of bright red and orange.

The flowers are yellow to yellow–green and appear in spring. They develop into a two–inch–wide capsules with warty spines. Native Americans used to extract the tannic acid from the seeds to cure leather. There’s a lot of natural variation within the species. At the south end of the Arboretum, across the Boulevard from the Japanese Garden, are three specimens of the Texas variety, *A. glabra* var. *arguta*. This variety has seven to nine leaflets (sometimes eleven) and creamy–white to light–yellow foliage.

**Honorable Mentions**

Other notable species in the Arboretum collection include *Aesculus indica*, the Himalayan horse chestnut. Both our specimens date to the 1950s and came to us from the Carl English Botanical Garden at the Ballard Locks. One can be found in the Linden Collection on Duck Bay; the other near the Viburnum Collection, close to the new Loop Trail. Rarely seen in cultivation in the U.S., this horse chestnut features large, glossy foliage and whitish–pink summer flowers.

*Aesculus flava*, yellow buckeye, from the eastern U.S., is a beautiful large tree that grows up to 75 feet tall. It offers pretty yellow flowers, a
spine-free fruit capsule, attractive yellow-orange to red fall foliage and handsome gray-brown bark. The Arboretum has nine specimens dating back to 1940, including three fine trees close to the new Loop Trail, just south of the Viburnum Collection.

An exciting new addition to the collection is *Aesculus wangi*, donated in 2008 by Dan Hinkley. In its native range in Vietnam, it is threatened by habitat loss and relatively unknown. It bears enormous clusters of scented, purple-brown-spotted yellow flowers in spring, followed by large conkers up to four inches across. The foliage is quite attractive, too. Our specimen is located in the upland area south of the Woodland Garden.

**A Note on Propagation**

*Aesculus* species are easily propagated by seed, but cultivars are most often budded (propagated by growing a bud from one plant on another plant). In such cases, the common horse-chestnut is used as understock. If you do bud, then select the buds from the axils of the large leaves, as the small, older buds usually will remain dormant.

When the seed capsules fall, they are usually still partially green. However, if you do intend to germinate the seeds, husk them as soon as possible. The seeds are best planted as soon as they fall. If left to dry, they often do not germinate. They can also be given a cold stratification period, but it is easiest to sow them outside and let mother nature provide the best conditions.

**LOOP TRAIL AND AESCULUS ACCESSIBILITY**

The new Loop Trail will make it easier for visitors to see and appreciate many of the Arboretum’s plants, including some of its horse chestnuts and buckeyes. The trail should make it easier to view the *Aesculus* near the Viburnum Collection and along Lake Washington Boulevard.

According to Ray Larson, the trail also improves accessibility to some of the plants in the core part of the *Aesculus* collection, notably in the area between Azalea Way and the now-graveled, cut-through path to the New Zealand Forest and Overlook gazebo. Access to the *Aesculus* around and near the large true firs (*Abies* species) on that hillside is particularly improved.

**John A. Wott** is the director emeritus of UW Botanic Gardens and a member of the “Bulletin” Editorial Board.