

SELF-GUIDED TOUR OF SPRING PLANTS
Brushy Hills Plant List May 4, 2020
Upper James River Chapter - Virginia Native Plant Society VNPS.org

For directions to Brushy Hills and a trail map, go to <http://www.friendsofbrushyhills.org/brushy-hills-info.html>. You'll also find a large map on the kiosk at the parking lot. We have planted flags along a loop of approximately two miles, with most flags concentrated in the first half.

If you have any questions about Brushy Hills itself, please contact Alexia at friendsofbrushyhills@gmail.com. Questions about plants or the Native Plant Society can be directed to Peggy at cobbking@rockbridge.net or Jan at janhuntersmith@gmail.com. Unlike on the Chessie Trail or the W&L back-campus trails, you will see few non-native invasive plants here, thanks to the hard work of Friends of Brushy Hills project chair David Rosher and many volunteers.

CAVEATS: Please note that we have tried to describe each plant as it will look for the near future, but they can change faster than we think -- and sometimes animals decide to eat the plant. Also, the flags do seem to get moved, for reasons we don't understand.

At the parking lot, there is a small bridge over a small creek to the left of the kiosk. Look for the pink flags.

#1 Golden ragwort *Packera aurea* (Native). Small yellow flowers that turn to white fluffs like dandelions. Evergreen foliage, fairly deer-resistant. Likes moist conditions, full sun to light shade. Bees and flies are pollinators.

#2 Small Blackhaw viburnum *Viburnum prunifolium* (Native). Grows to a shrub or small tree, 12-15 feet tall. Leaves are opposite, often with a red rim. New leaves are copper-colored; white, flat-topped flowers follow. Birds adore the black fruits. Full sun to part shade. Many cultivars in the nursery trade.

#3 Mayapple *Podophyllum peltatum* (Native). Umbrella-like leaves. In the Barberry Family. Not all plants in a colony will bloom in a given year, but the ones that do bloom bear two leaves; sterile plants produce just a single leaf. The white/yellow flower (one per plant) occurs at the fork between the two leaf stems and hangs down. The "apple" develops at the center of this flower. Pollinated by bees and disseminated by box turtles, who eat the apple and poop the seed out in their wanderings.

#4 *Smilax* vine (Native). In the Greenbrier family; many species – some thorny. Flowers visited by bees and flies for nectar and pollen. Host plant for the Curve-lined Owlet moth (that is, the moth will lay its eggs only on *Smilax* vines). Birds and even bears enjoy their berries. Rattlesnake Fern *Botrypus virginianus* (Native). Will have one sporophore (fertile stalk) that will grow much taller than the lower, triangular leaves. Solomon's seal *Polygonatum biflorum* (Native). The variegated garden cultivar is the Asian species *P. odoratum*. Full shade. Creamy flowers dangle below stalk.

#5 Wild ginger *Asarum canadense* (Native). Velvety heart-shaped leaves. Note the maroon flower at the base of the stems, at ground level. Maroon is the color of decomposing flesh, which attracts flies---that's how they get pollinated. The root is not great for tea. Deciduous.

#6 Sweet Cicely *Osmorhiza claytonia* (Native)—"sweet" because its foliage and root smell like licorice. A tall plant with leaves divided into threes, hairy stems, and flat clusters of small white flowers.

#7 Star Chickweed or Greater Chickweed *Stellaria pubera* (Native). In the carnation or pink family. Daisy-like in appearance, each flower actually has not 10 but 5 petals, each petal deeply divided. The leaves fold up at nighttime, enfolding and protecting the tender buds of new shoots.

#8 Woodfern *Dryopteris* genus (Native). There are many *Dryopteris* species, and they frequently cross with each other, making identification difficult. The Woodfern leaf is divided into leaflets, further divided into subleaflets. To the right is a Christmas Fern *Polystichum acrostichoides* (Native), with leaves less divided. It is evergreen.

#9 Cleavers *Galium aparine* (Non-native gallium) on the left. Usually 6-8 leaves in a whorl, small white flowers. Put a piece of it on your arm and the name is self-explanatory. This is how it spreads everywhere. To the right is the start of a small oriental bittersweet *Celastrus orbiculatus* vine, with roundish leaves (Non-Native). INVASIVE. Prolific orange berries in fall and winter. Its vines were strangling many trees in Brushy Hills – it has taken many years of hand-pulling and targeted herbicide application to clear it, and you will still see seedlings everywhere. Roots are reddish.

#10 Perfoliate Bellwort *Uvularia perfoliata* (Native). Arching stems with long oval leaves. “Perfoliate”: note how the stem is threaded *through the leaf*. The bell-like yellow flowers have lost their petals, but you may find three-lobed seed capsules on this plant or others along the trail. Behind it is a large, older bloodroot leaf. 2-2.5 feet to the left of the flag is a small Rattlesnake Fern (*Botrypus virginianus*) with its emerging spore-producing spike (sporophore), which looks like the rattle on a rattlesnake’s tail.

#11 Wild or Cranesbill Geranium *Geranium maculatum* (Native). Deeply cut, palmate 5-lobed, dark green leaves, up to 6" across. Five-petaled rose-purple, pale or violet-purple flowers give way to distinctive, beaked seed capsules (like a crane's bill); when seeds ripen, capsules zip open, flinging seed out. Deer resistant. VA Native Plant Society 2020 Wild Flower of the Year [VNPS plant brochure](#). Virgin's bower *Clematis virginiana* (Native) is a vine in the Buttercup Family. It has 3 broadly toothed leaflets. It will climb trees and outbuildings and provide white wispy flowers in late summer/early fall. The vines are soft and not destructive. There is a similar-looking Asian variety, but its leaves have smooth edges and its flowers are more fragrant; it spreads like crazy.

#12 Poison Ivy *Toxicodendron radicans* (Native). Three almond-shaped leaflets, somewhat shiny, sometimes toothed. New leaves have a purplish tone and later range from light to dark green. Will grow into a vine eventually but can get quite tall as a little treelet. The berries are enjoyed by birds. Many people get an itchy rash from the compound *urushiol* in leaves.

#13 Virginia Knotweed or Jumpseed *Polygonum virginiana* (Native). Pointy oval leaves, older ones with a dark blotch in the middle

#14 Three Mayapple *Podophyllum peltatum*, in bloom and beginning to form "apples" in the center of the flower. Note that each plant has two leaves; immature plants have just one.

#15 Large-flowered Trillium *Trillium grandiflorum* (Native). Produces a single flower atop a whorl of three leaves or bracts. The flower changes color from white to pink as it ages. And take a look around on both sides of the trail: note Golden Ragwort, Wild Geranium, and Greater Chickweed.

#16 Seedpod of Bloodroot *Sanguinaria Canadensis* (Native). The seed pod will turn reddish after about 2 weeks, and then it will pop and spread its seeds. Like many seeds, these have elaiosomes (fleshy appendages that are rich in fatty acids and diglycerides), which are attractive to ants. The ants gather the seeds and carry them to their nests, where the elaiosomes are eaten and the seeds discarded.

As you cross the gas pipeline right-of-way clearing, look to the right to see the lovely colony of Golden Ragwort.

#17 Putty Root Orchid *Aplectrum hyemale* (Native). Here you can see three stages of this plant: two striped leaves on the ground, beginning to wither; two flower stalks developing; and a dried stalk from last summer, with empty seed pods on it. This orchid develops a single basal leaf per plant during the fall, which persists through the winter. It's one of the few plants that photosynthesize in the winter (more sunlight on the forest floor!). When the basal leaf withers away in spring, a flower stalk 6-20 inches tall is produced — sometimes! A large majority of plants fail to produce flowers during any given year, either because they are too small and immature or environmental conditions are unfavorable. There is a lot we don't know about orchids.

You can turn around here if your time is limited; from here onward, the flags generally will be more widely spaced.

#18 Forest Bedstraw or Wild Licorice *Galium circaezans* (Non-native). There are numerous galiums — both native and non-native (see #9, the native Cleavers). This one has 4 leaves in the nodes of the whorl.

#19 A young Beech *Fagus grandifolia* (Native). Behind the flag and to the left is a wild yam vine *Discorea villosa* (Native) with heart shaped leaves in a whorl. And look ahead and across the trail to a 6-foot-long yam vine (twined around a 6-foot-tall Beech) with a few of last year's seeds, little light-tan lanterns, at about eye level.

Flags #20 and #21 are no longer here.

#22 Either white wood aster *Eurybia divaricata* OR heart-leaved aster (blue) *Symphotrichum cordifolium* (Natives). Both have lower leaves that are heart-shaped - they don't differentiate much until they're taller. Both flower in late summer just when bees really need nectar and are quite common on the forest floor. Deer resistant.

#23 This flag is now located after flag #39

#24 Virginia Creeper *Parthenocissus quinquefolia* (Native), on the rootball of the fallen tree (a large mound of dirt). Vine with five leaflets joined at a central point (palmate). Can be used as either a groundcover or vine, with lovely fall color and berries that birds enjoy. Can be a bit aggressive — easy to pull on the ground but more difficult once it's in trees.

#25 Basswood/American Linden sapling *Tilia Americana* (Native). Becomes a majestic tree with heart-shaped leaves and yellow flowers that bees adore. Soft, light wood prized for hand carvings and making baskets. Its cotyledons (initial leaves out of the seed) look like two hands joined at the wrists.

#26 Oak seedling, a *Quercus* species in the red oak group (Native). All oaks are in the *Quercus* genus but can be differentiated into two groups called Red and White. Leaf shape is the best indicator: in general, oaks in the White group have leaves with rounded lobes, whereas oaks in the Red group have leaves with pointed lobes with a tiny bristle on their tips. But there are exceptions, and, moreover, oaks often hybridize! Oaks grow slowly, and this specimen may be 3 to 5 years old.

#27 Showy Orchid *Galearis spectabilis* (Native). Look about 4 feet to the right of the flag, to the base of the tree, and you'll see at least 7 showy orchids. They're of short stature, with thick glossy leaves and flowers of white and lavender. They like rich limestone soils.

#28 Wild Comfrey. *Cynoglossum virginianum* (Native). It has rough fine hair on its leaves and stem. The plant will develop a long flower stem with progressively smaller leaves, small blue to white flowers, and burry seeds. Also lots of Sweet Cicely (#6) in the area.

#29 Jack-in-the-Pulpit *Arisaema triphyllum* (Native). About 3 feet back, at the end of the stick. Three-parted leaves; flowers contained in a spadix that is covered by a hood. Grows from a corm (small bulb).

#30 Bearcorn/Squaw Root *Conopholis Americana* (Native). Somewhat resembling pinecones, yellowish and turning brown, this is a perennial, non-photosynthesizing plant parasitic on the roots of Oaks and Beeches. Look up the slope and you'll see flocks of them! And, yes, bears coming out of hibernation, as well as other mammals, will eat these.

#31 White Lettuce/ White Rattlesnake-root *Nabalus albus* (Native). Will reach 2 to 5 feet tall, but at present is low to the ground, its leaves changing from early heart shapes to triangular shapes later. Will flower in late summer with small white dangling flowers. In the Aster family, to which our garden lettuce also belongs.

#32 A young Mountain Maple *Acer spicatum* (Native). It will grow to be a tall shrub or small tree, about 30 feet tall in moist areas. Red samaras (winged maple seeds). One-year-old twigs are brown to reddish, sometimes with a purplish cast, and hairy. Older branches and trunk are mottled gray, smooth or somewhat rough.

#33 Cranefly Orchid *Tipularia discolor* (Native). Note that the underside of its leaves are purple. Like Putty Root, this plant photosynthesizes in winter. No seedstalk on this particular specimen. Pollinated by Noctuid moths. Look back and to the right to see some larger leaves of these orchids.

#34 A baby Maple-leaved Viburnum *Viburnum acerfolium* (Native). In adulthood, a five- to eight-foot-tall shrub with five-petaled creamy flowers. Forms thickets. Black fruit persists into winter, providing food for birds.

#35 Another Jack-in-the-Pulpit (see #29)

#36 Yellow Lady Slipper *Cypripedium pubescens* (Native). Never dig: orchids need their unique soil mycorrhizal partners to live—they'll die without them. The showy flowers are deceptive because they induce insects to explore the flowers in the expectation of a reward, but they contain no nectar and their pollen is unavailable to insects. If a flower is successfully pollinated by insects (often this doesn't occur), it will form a seedpod. When this seedpod splits open, the ultra-fine seeds are easily carried aloft by the wind. Deer will eat the foliage.

#37 Black Cohosh *Actaea racemosa* (Native). So named for the color of its stem. Repeated sets of three leaflets having a coarsely toothed margin. Produces tall white spires of flowers in late spring. Popular in the nursery trade. Host plant for the Spring Azure, Holly Blue, and Appalachian Azure butterflies (*Celastrina spp*).

#38 A young Sassafras tree *Sassafras albidum* (Native). Leaves can have three different shapes – 3-lobed, mitten, and unlobed/oval. Produces edible nuts for song birds and small mammals.

#39 Coralberry *Symphoricarpos orbiculatus* (Native). Low-growing thicket-forming shrub with small oval leaves arranged oppositely along the branches. It bears clusters of small flowers (tiny bees are all over them) succeeded by red-purplish berries that persist into winter and are loved by birds.

#23 (out of order!) Wild Comfrey *Cynoglossum virginianum* (Native). It spreads to new areas by its soft seeds with burry coats getting attached to animals.

#40 Old stalk of Beechdrops *Epifagus virginiana* (Native). Parasitic plant that grows on the roots of American Beech. Its brown stems bear small white and purple flowers in July through October.

At the top, turn left onto the Turtle Trail.

#41 Small-flowered Agrimony *Agrimonia parviflora* (Native). Toothed, pointed leaves with small leaves between the larger leaves. Will get small yellow flowers followed by tiny seed burrs. The tree close to it is an Ash.

#42 Honewort *Cryptotaenia canadensis* (Native). Oval, toothed leaflets in threes. Will grow 1 - 3 feet tall and bear tiny white flowers. Member of the Parsley family. Spreads readily. Across the path are Putty Root leaves (see #17).

#43 A low mat of Chickweed, with shiny leaves and small white flowers. A *Veronica* species, with a small spire of white to lavender flowers. In their midst, the long dark green leaves are native asters or goldenrods. The taller plants with white flowers are a weed, but we did not take time to specifically ID as there are many similar plants. These are likely a species of *Lepidium* - peppergrass.

As you walk the trail, keep an eye on the uphill cut slope for many favorite natives.

#44 Broad Beech Fern *Phegopteris hexagonoptera* (Native). A deciduous fern of forests. Prefers moist soils, often growing at the base of slopes or the edge of seeps

#45 Large-flowered Bellwort/Merrybells *Uvularia grandiflora* (Native). Arching stems with long oval leaves, that just barely surround the stem (contrast #10, Perfoliate Bellwort). No longer flowering, but look for three-lobed seed capsules.

#46 Smooth Hydrangea *Hydrangea arborescens* (Native). Just up the slope, at the base of dead stalks. Broad oval leaves with pointed tips. Likes loamy, well drained soil. This is the plant that the common "Annabelle" hydrangea was developed from. Not deer resistant, so is present mostly on steep slopes.

#47 Goatsbeard *Aruncus dioicus* (Native). Toothed leaflets in threes. Produces plumes of feathery white or cream flowers in midsummer. Host to the Dusky Azure butterfly. Commonly available in the nursery trade. Great hardy shade plant for gardens.

#48 Thoroughwort *Eupatorium altissimum* OR *hyssopifolium* (Native). Tall plant with white flowers in summer. Deer resistant. Butterflies enjoy it.

#49 Plaintain-leaved Pussytoes *Antennaria plantaginifolia* (Native). Low plant; oval leaves with parallel veins. The fuzzy white flower resembles—pussy toes. Tough plant; grows in fields. Host plant for the American Lady butterfly.

#50 Note the two different vines, both cut. The smooth pale vine of the invasive Oriental Bittersweet *Celastrus orbiculatus* contrasts with the dark-brown rough bark of the native grape.

Lean left to stay on the Turtle Trail, not the Salad Bowl Trail. You will be taking switchbacks down to the parking lot.

#51 Wild Columbine *Aquilegia canadensis* (Native). Three leaflets with rounded lobes. Will have lovely orange and yellow bell-shaped flowers. Hummingbirds are attracted to this color combination. Its seed pods "pop," and so it spreads well. To the left of the Columbine is a Mayapple, and to the left of that is a Wild Yam vine.

#52 Another Showy Orchid *Galearis spectabilis* (Native). See #27.

#53 Spice Bush with small, just-forming green fruits – so it's a female. *Lindera benzoin* (Native). Both male and female shrubs have yellow flowers in the early spring. Only the females will have small green fruits (wherever their flowers were pollinated) – these will grow to about ½ inch long, turn red, then black, and be relished by many birds!

Note the trilliums as you finish walking down the hill.

Congrats on making it to the end!