

# Beckemeier Conservation Area

February 26, 2024

	<b>BOTANICAL NAME</b> (with <a href="#">etymology</a> & genus pronunciation)	<b>FAMILY</b> [CC] = <a href="#">Coefficient of Conservatism</a>	<b>COMMON NAME</b> (with tips we learned)
<input type="checkbox"/>	<a href="#">Acer saccharinum</a> (mnemonic: “Who wants sugar?” [no answer] “Who wants silver?” [“I!” “I!” “I want silver!”]) (AY-sr / sack-er-RYE-num)	Sapindaceae [CC2]	Silver Maple (leaf lobes spikey, frazzled, with deep angular sinuses, like a Sugar Maple after 20 cups of coffee, / scratched twigs have a perceptible odor / leaf underside silvery / bark develops a shaggy, flaky appearance / flowers have no petals [unlike Red Maple] )
<input type="checkbox"/>	<a href="#">Aesculus glabra</a> (a type of tree + smooth [leaf]) (ESS-kyoo-luss)	Sapindaceae [CC5]	Ohio Buckeye (early to lose its leaves, chunky twigs, terminal buds very large, sharply-pointed, opposite / broad leaf scars)
<input type="checkbox"/>	<a href="#">Asimina triloba</a> (native American name of tree + 3 lobes) (uh-SIM-in-uh)	Annonaceae (a Basal Angiosperm family) [CC5]	Pawpaw (the only member of the family not confined to the tropics, hence the naked “paintbrush” buds in winter / tree branches can be flat, forming a terraced, planar architecture)
<input type="checkbox"/>	<a href="#">Asplenium platyneuron</a> (without spleen [medicinal for aiding spleen] + flat veins) (uh-SPLEE-nee-um)	Aspleniaceae [CC4]	Ebony Spleenwort (cheerful little fern; fertile fronds stand upright but die off during winter; sterile fronds are evergreen and lie on ground during winter)
<input type="checkbox"/>	<a href="#">Cardamine hirsuta</a> (cress + hirsute [long, straight, distinct hairs]) (kar-DAM-i-nee)	Brassicaceae [intro]	Hairy Bittercress (leaves: pinnately compound with several pairs of roundish leaflets plus a larger terminal leaflet / basal rosette is more robust than its lookalikes / flower: small, with 4 green sepals, 4 white petals arranged in an “X” or cross, usually 4 stamens [most other mustards have 6 stamens], and a carpel whose style grows in girth and length to form a silique fruit / mature silique will dry and split open explosively, flinging its seeds a long distance /
<input type="checkbox"/>	<a href="#">Carya cordiformis</a> (nut tree + heart-shaped) (KAYR-ee-uh)	Juglandaceae [CC5]	Bitternut Hickory (has naked buds, like the pecan, but mustard-colored / St. Louis has 7 different hickory species / the hickories can be divided into 2 sections: the Bitternut and Pecan belong to one section [Apocarya] while all the others, i.e. Pignut, Shellbark, Shagbark, Black, and Mockernut belong to the other section [Carya] which has scales on its buds)
<input type="checkbox"/>	<a href="#">Claytonia virginica</a> (klay-TOE-nee-uh)	Montiaceae [CC3]	Spring Beauty (perennial that overwinters from a corm / Spring ephemeral / leaves: somewhat grass-shaped / <u>inflorescence</u> : raceme with 5-18 flowers, all usually on one side of the peduncle; <u>flower</u> : 2 sepals, 5 petals (with pink striping), 5 stamens (with pink anthers) / <u>fruit</u> : capsule / elaiosomes on seeds attract ants for dispersal / all parts edible / chromosome numbers vary wildly)
<input type="checkbox"/>	<a href="#">Fraxinus smallii</a> (ash tree + somebody’s name) (FRACK-sin-us)	Oleaceae [CC3]	Sullivan’s Ash [yes! our own Father Sullivan!] (a type of White Ash which has, among other differences, brown buds instead of the typical black ones)
<input type="checkbox"/>	<a href="#">Hydrangea arborescens</a> (= water-vessel + tree) (hy-DRANN-jee-uh)	Hydrangeaceae [CC7]	Wild Hydrangea / Smooth Hydrangea (winter capsules resemble summer inflorescences / any showy flowers around the periphery of the inflorescence are sterile / the flowers without the large white petaloid sepals are fertile / toothed, ovate leaves are opposite with long petioles)
<input type="checkbox"/>	<a href="#">Ostrya virginiana</a> (= Gk name of tree) (o-STRY-yuh)	Betulaceae [CC4]	Hop Hornbeam (hop-like fruit, shredded bark on older trees, leaves often marcescent [retained throughout winter], with venation that is forked at margin [in contrast to <i>Carpinus</i> ])
<input type="checkbox"/>	<a href="#">Ribes missouriense</a> (acid-tasting + missouri) (RY-beez)	Grossulariaceae [CC3]	Missouri Gooseberry (prickles in whorls of 3)
<input type="checkbox"/>	<a href="#">Sassafras albidum</a> (sassafras + white) (SASS-uh-frass)	Lauraceae (Laurel Family) [CC2]	Sassafras (has greenish twigs, even in winter / scratch to enjoy Juicyfruit Gum or Fruit Loops fragrance / terminal buds green and plump /

			plant is dioecious / leaves: some mitten-shaped / no longer sold as food because of safrole's cancer link)
☐	<a href="#"><i>Tilia americana</i></a> (= linden tree) (TILL-ee-uh)	Malvaceae [CC5]	Basswood ("has red buds, but it's not a Redbud" – Fr. Sullivan's joke / zigzag twigs / look for telltale bracts with attached peduncles / asymmetric leaf base, hyaline tissue along leaf margins, upper surface glabrous)
☐	<a href="#"><i>Ulmus americana</i></a> (UL-muss)	Ulmaceae [CC4]	American Elm / White Elm (In comparison with Slippery Elm, the <u>winter buds</u> of American Elm are lighter-colored and glabrous [or if there are hairs, they are pale and restricted to scale margins] / <u>leaves</u> : upper surface is smoother than Slippery Elm, and no leaves are strongly folded upward along midvein / American Elm leaf tips are not severely acuminate / both have double-serrated leaves with asymmetrical bases / <u>fruit</u> : American Elm samaras have cilia along margin)

## NOTES

With record-breaking temperatures near 80°, we set out with high hopes of finding flowers this morning. But when we got to Beckemeier, the Flower Shop was more or less closed. It's like when we went to Tilles Park a few summers ago and were disappointed that the Christmas lights were gone. "Gee, where are they?" Wrong season.

As a sort of consolation prize for showing up, Mother Nature gifted us with 2 flowers: in the open areas we found "Hairy Bittercress" (*Cardamine hirsuta*), and in the wooded areas we found "Spring Beauty" (*Claytonia virginica*). Consolation or not, both flowers are interesting and worth getting-to-know.

**HAIRY BITTERCRESS:** He's probably got the worst name ever for a flower. It was John who first identified it and explained some of its features. Since it was the first plant we saw near the parking lot, we didn't spend much time gushing over it. After all, it's not a native and we had high expectations of finding many native flowers later in our walk. But in the larger world, *Cardamine hirsuta* is quite a star. On YouTube there are many videos that extoll its tastiness and nutritional value. A couple of YouTube presenters specifically recommended Hairy Bittercress on cheese sandwiches. None of them mentioned anything about bitterness or hairiness, except to say that the words are misnomers. (Even we couldn't find any hairs without magnification. John mentioned that he was basing his identification largely on the shape of the terminal leaflet.)

*Cardamine hirsuta* is in the mustard/cabbage family (Brassicaceae). St. Louis has 46 mustards (listed [HERE](#)). Unfortunately 5 of them are named "*Cardamine*" (car-DAM-eh-nee). So now's the perfect time to become familiar with *Cardamine hirsuta* because in a few short weeks its more famous relatives (especially Toothwort) will certainly steal-away its spotlight.

Hairy Bittercress often displays an attractive winter rosette of basal leaves that create a pleasant geometrical pattern. (Several other plants have attractive geometrical rosettes too, especially thistles.) Later, the plants produce little white flowers which, like most brassicas, have 4 petals that create an "X" or "cross" (hence the old family name "Cruciferae"). Hairy Bittercress has 4 (sometimes 5) stamens. This is useful for identification because most of its lookalikes will have 6 stamens. After fertilization, the pistil at the center of each flower starts to fatten-up. It begins to look like a cigar with ashes (the stigma) at its end. Then it starts growing longer and longer, like Pinocchio's nose. "I ain't in no cabbage family!" It grows longer. "I ain't in no cabbage family!" It grows even longer. Eventually it will become a "silique" (one of the iconic fruits of the Brassicaceae) which will dry and explosively open, flinging its seeds quite a distance away. An especially useful video for learning about Hairy Bittercress is Angelyn Whitmeyer's "[Plant Portrait](#)". (She has a whole series of "plant portraits" in which she lovingly takes us through a plant's life cycle, calmly and clearly explaining each step with the soothing patience of a kindergarten teacher ... or [gulp] a geriatrics nurse.)

**SPRING BEAUTY:** Just the opposite of Hairy Bittercress, Spring Beauty probably has the greatest name ever for a flower. We spotted her grasslike leaves soon after we entered the woods. We kept walking and looking. A quarter hour passed when somebody noticed flower buds. That gave us hope. After another 10 minutes or so we turned a corner and there they were: FLOWERS! We all shouted-out with an excited "Oh!".

If you're lucky enough to know somebody named "Virginia" who lives in Clayton, you'll never forget Spring Beauty's botanical name *Claytonia virginica*. As for her common name, she really lives-up to it. Our Steve Turner has some photos [HERE](#) that show how she even color-coordinates her anthers with the stripes on her petals. (Warner Brothers should have hired a botanist because these flowers belong in the "Barbie" movie for sure!)

However the flowers we saw weren't as colorful as Steve's or others that we find online. It seems that when people find a flower that's extra pink, they take a picture of it. Collectively these select photos give the misimpression that all Spring Beauties look that way. So we shouldn't feel disappointed when we mostly find white duds out in the field.

In addition to her beauty, the whole plant is edible! Spring Beauty's pea-sized corm is said to taste like potato. Of course we'd have to rip-up an entire habitat to get enough food to equal a single potato from Schnucks. But on the plus side, eating its leaves just might save us from getting scurvy. The plant is in the same genus as Miner's Lettuce (*Claytonia perfoliata*) which is famous for having protected the 49ers (the California gold miners of 1849, not the football team) from the disease.

Finding the Spring Beauties was probably the highlight of our walk. We're lucky that Monday was sunny because the flowers are often closed on overcast days (and at night).

#### SHORT OBSERVATIONS:

- Before the walk began, John gave us a brief overview of soil pH. He used the term "circum-neutral" to describe the slight variations in acidity and alkalinity that our soils hover around. He listed several plants that preferred one over the other. With acidic soils in the eastern part of the country, and basic soils in the western part, we're fortunate to be right in the middle to enjoy both. (Here's a [MAP](#) of soil pH of the U.S.)
- Kathy Bildner found Boxelder bugs scrambling on the trunk of the big Silver Maple tree near the parking lot.
- We saw plenty of young Sassafras trees with their green fragrant "Fruit-Loops" branches.
- John spoke appreciatively of Bill Duncan's volunteer work to rid the park of Bush Honeysuckle. (After which we started finding it popping-out here and there.)
- We found a small Basswood tree with buds of such a vivid rose color they looked like LED's. Mark repeated Fr. Sullivan's joke: "It has red buds, but it's not a redbud." If I heard him correctly, Sebastian mentioned that the flowers have caffeine in their nectar, resulting in extra busy bees. (Yet one more thing to look forward to in May!)
- The Missouri Gooseberry (*Ribes missouriense*) shrubs that we found had prickles in attractive whorls of 3. We don't have the chance to appreciate this in the summer when the leaves obscure them.
- We arrived at a large area full of Hop Hornbeam (*Ostrya virginiana*) trees. It was rather dramatic because they were all still holding-on to their marcescent leaves.
- We found several bits of greenery emerging from the ground, including Mayapple and a *Ranunculus*.

#### PARTICIPANTS:

There were 18 of us botanists today, who are (in alphabetical order):

Brenda Adams, Kathy Bildner, Steve Bizub, Jerry Castillon, Wayne Clark, Sebastian Forward, Lorie Hetrick-Volenberg, Michael Laschober, Bodhi Lee, Sharon Lu, Burt Noll, John Oliver, David Steinmeyer, Kathy Thiele, Mark & Deb Tolcou, George Van Brunt, and Laura Yates.