# St. Francois (Bottomland)

March 4, 2024

| | **BOTANICAL NAME**<br>(with etymology & genus pronunciation) | **FAMILY**<br>[CC] = Coefficient of Conservatism | **COMMON NAME**<br>(with tips we learned) |
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| ☐ | *Alliaria petiolata* (garlic-like + having a leaf stalk)<br>(al-lee-AYR-ee-uh) | Brassicaceae<br>[intro] | Garlic Mustard<br>(non-native biennial / hard to get rid of with its self-compatible flowers and its seeds that remain viable in the soil for years / offers no known wildlife benefit and is toxic to larvae of several butterfly species / chopped leaves used as seasoning) |
| ☐ | *Ampelopsis cordata* (resembling a vine + heart-shaped)<br>(am-pel-OP-sis) | Vitaceae<br>[CC3] | Raccoon Grape / Heartleaf Peppervine<br>(bark deeply furrowed / fruit cluster more spherical than the *Vitis* genus /stem less dense than the *Vitis* genus) |
| ☐ | *Asplenium rhizophyllum* (without spleen + rooting leaves)<br>(uh-SPLEE-nee-um) | Aspleniaceae<br>[CC7] | Walking Fern<br>(stays green in winter / long, arrow-shaped leaves develop roots on their tips to create clones / plant also produces spores like other ferns) |
| ☐ | *Cardamine hirsuta* (cress + hirsute [long, straight, distinct hairs)<br>(kar-DAM-ih-nee) | Brassicaceae<br>[intro] | Hairy Bittercress (not to be confused with its St. Louis lookalikes *C.parviflora* and *C.pensylvanica*)<br>(winter annual or biennial / leaves: pinnately compound with several pairs of roundish leaflets plus a larger terminal leaflet / the basal rosette is full and lush during flowering [a diagnostically important feature that distinguishes it from its lookalikes] / flower: small, with 4 green sepals, 4 white petals arranged in an "X" or cross, 4 stamens [diagnostically important because its lookalikes have 6 stamens], and a carpel whose style grows in girth and length to form an upright silique fruit [diagnostically important because the siliques of its lookalikes are not as vertical] / mature silique will dry and split open explosively, flinging its seeds a long distance / ) |
| ☐ | *Cardamine parviflora* (cress + small-flowered)<br>(kar-DAM-ih-nee) | Brassicaceae<br>[CC3] | Small-Flowered Bittercress / Sand Bittercress (not to be confused with its St. Louis lookalikes *C.hirsuta* and *C.pensylvanica*)<br>(winter annual, 12" tall / stem leaflets linear to oblanceolate <1/4" wide [diagnostically important because its lookalikes both have wider leaflets] with terminal leaflet the same size / few or no basal leaves at flowering [diagnostically important to differentiate from *C.hirsuta*] / petioles hairless / habitat: prefers drier soils of upland areas / ) |
| ☐ | *Claytonia virginica*<br>(klay-TOE-nee-uh) | Montiaceae<br>[CC3] | Spring Beauty<br>(perennial that overwinters from a corm / Spring ephemeral / leaves: somewhat grass-shaped / inflorescence: raceme with 5-18 flowers, all usually on one side of the peduncle; flower: 2 sepals, 5 petals (with pink striping), 5 stamens (with pink anthers) / fruit: capsule / elaiosomes on seeds attract ants for dispersal / all parts edible / chromosome numbers vary wildly) |
| ☐ | *Enemion biternatum* (= Anemone + two clusters of 3)<br>(eh-NEE-mee-un) | Ranunculaceae<br>[CC5] | Lowland Rue-Anemone / False Rue-Anemone<br>(in comparison with the "True" Rue-Anemone [*Thalictrum thalictroides*], *Enemion* has 5 "petals" [actually petaloid sepals, of which *Thalictrum* often has more], it is white [instead of sometimes pink], its habitat is moist lowland [instead of drier upland], it often grows in large groups [instead of solitary or in small groups], its leaflets have longer fingerlike lobes [instead of "kitten-paw" leaflets with short lobes]) |
| ☐ | *Erigenia bulbosa* (= early + born)<br>(ayr-ih-JEE-nee-uh) | Apiaceae<br>[CC6] | Harbinger of Spring<br>(perennial / very small plant with tiny white flowers arranged in umbels / anthers begin dark red, soon turning black [hence the alternate name "salt and pepper"] / stem purple / leaves compound or deeply divided;) |

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| ☐ | *Glechoma hederacea* (thyme + like ivy)<br>(gleh-KOE-muh) | Lamiaceae<br>[intro] | Ground Ivy / Creeping Charlie /<br>(perennial, mat-forming, square stem / leaves: opposite, nearly round with cordate base, scalloped margins, with petiole / inflorescence: 2-6 flowers in axillary cluster; secund (one side only) / flower: mintlike, purple with darker and lighter mottling) |
| ☐ | *Rudbeckia laciniata* (somebody's name + lacerated [leaves])<br>(rood-BECK-ee-uh) | Asteraceae (Heliantheae tribe)<br>[CC4] | Cutleaf Coneflower / Goldenglow / Green-headed Coneflower<br>(perennial / flowers resemble *Verbesina alternifolia* but with a few extra rays / leaves resemble *Rudbeckia triloba* but with an extra pair of lobes) |
| ☐ | *Sambucus canadensis* (= Elder shrub)<br>(sam-BOO-kuss) | Adoxaceae (Townhall Clock or Moschatel Family – no relation to Moscat Grapes or Moscatel wine) [CC2] | Black Elderberry<br>(shrub / leaves: opposite, compound, with 5-9 leaflets / inflorescence: 8-12" diameter corymbs of white flowers / flowers and ripe berries edible) |
| ☐ | *Sanguinaria canadensis* (= blood red)<br>(san-gwen-AYR-ee-uh) | Papaveraceae<br>[CC5] | Bloodroot<br>(perennial / orange-red sap / leaves: only one per year from end of rhizome – but what a leaf it is! / flower: solitary with usually 8 white petals [with 4 being slightly smaller than the other 4] / many stamens / style only 1mm long / stigma 2-lobed /) |
| ☐ | *Veronica polita*<br>(vr-RON-nick-uh) | Plantaginaceae<br>[intro] | Gray Field Speedwell<br>(leaves: opposite, broadly ovate, short petioles, margins scalloped / fruits: heart-shaped / similar to Birdseye Speedwell *Veronica persica*, but *V.polita* has smaller flowers [<8mm wide rather than >8mm] and shorter flower stems [<15mm rather than >15mm]) |

## NOTES

The flower countdown has begun! We're now at "7". Last week at Beckemeier we found 2 spring ephemerals: Hairy Bittercress (*Cardamine hirsuta*) and Spring Beauty (*Claytonia virginica*). Today we found those same 2 flowers right off the bat, then soon found 5 more: Gray Field Speedwell (*Veronica polita*), Harbinger of Spring (*Erigenia bulbosa*), Ground Ivy/Creeping Charlie (*Glechoma hederacea*), Lowland Rue-Anemone, and Bloodroot (*Sanguinaria canadensis*).

If we study our St. Louis spring wildflowers in an orderly fashion as they appear week by week, we might be able to learn them all. Last week's descriptions of "Hairy Bittercress" and "Spring Beauty" can be found HERE. This week we'll focus on the 5 new ones.

GRAY VERONICA (*Veronica polita*): St. Louis has 29 members of the Plantain Family. The list can be found HERE. Of these 29 members, 7 are named "Veronica". Every spring the 7 Veronica sisters come to St. Louis from all over the world for a reunion. They're all quite respected as healers – in fact they're commonly called "Speedwells" because they can supposedly speed a person back to wellness in no time. The Veronica sisters share some common attributes. They all have 2 stamens, a distinctive heart-shaped fruit, and 4 petals. Those petals look a bit odd. At least one of them is slightly smaller than the others, causing the corolla to appear somewhat lop-sided and asymmetric.
This morning we met the polite Gray Veronica (*Veronica polita*). Our English word "polite" and the species epithet "*polita*" both come from the same Latin word "*politus*" meaning "smooth" or "polished". John explained that not too long ago the Gray Veronica was found only in a few Missouri counties. Now it's everywhere! She may be gray, but this Veronica really gets around!
By the way, searching for "Veronica" or "Speedwell" on YouTube brings up a dozen or so gardening videos, but the plants and flowers that star in those videos look nothing like our homely "Veronica". Instead, the plants appear larger and more dramatic with elegant spirelike inflorescences – more like our native "*Veronicastrum*" (Culver's Root). So it seems that the horticulture industry uses the easier-to-say name "*Veronica*" for convenience instead of the correct botanical name "*Veronicastrum*".

HARBINGER OF SPRING (*Erigenia bulbosa*): Harbinger is in the Carrot Family, not in the Mustard Family like the other tiny, white-flowered ephemerals. That means its flowers are arranged in umbels and its leaves have a sheath at their base. The flowers open before (or with) the leaves.
Every year we make it a point to go searching for the famous "Harbinger of Spring". Finding it is our annual Rite of Passage. We don't always find it. But today as soon as we entered the rich, moist woods, we found the tiny "salt-and-pepper" flowers almost everywhere we looked! It's always a good feeling to find them. Burt announced clearly and confidently: "Spring is coming!"

GROUND IVY (*Glechoma hederacea*): There are 3 similar-looking mints that often appear together in early spring to confuse us. Today we found "Ground Ivy", also known as "Creeping Charlie". We're still on the lookout for the remaining 2 of the "3 Mintkateers", namely Henbit (*Lamium amplexicaule*) and Purple Deadnettle (*Lamium purpureum*). Of these 3 mints, Ground Ivy is the mat-forming, viny one that roots at its nodes. It has small roundish leaves (in contrast to Deadnettle which has fuzzy triangular leaves) and has petioles (in contrast to Henbit which does not have petioles because the hen bit them off).

LOWLAND RUE ANEMONE (*Enemion biternatum*): Yes, the whole world calls this fellow "False Rue Anemone". But Father Sullivan suggested "Lowland Rue Anemone" as a more meaningful name. So in deference to our Fr. Sullivan, that's what we'll call it here. St. Louis has 2 different Rue Anemones. If you have trouble differentiating between them, your troubles will be over if you read our silly story about a debate between the 2 plants HERE.

BLOODROOT (*Sanguinaria canadensis*): Kathy Bildner found several Bloodroot poppies along the trail as we were leaving the woods. How could we have passed these big beauties going in? Each 8-petaled flower is larger than the flowers from all the other 6 species we found put together! Kathy suggested that maybe they weren't yet open when we entered an hour earlier. Better late than never. This was a great way to end our walk!

SHORT OBSERVATIONS:

- We found many Virginia Bluebells (*Mertensia virginica*) scattered on the rich damp soil. Their buds were just starting to open and we could see a bright rose color peeking through. But they were not yet open, so we did not include them in our flower count.
- John pointed-out an Elderberry shrub (*Sambucus canadensis*) whose leaves were already starting to erupt from its pimply bark. Oftentimes woody plants that leaf-out this early are troublemakers, such as Bush Honeysuckle (*Lonicera maackii*). In fact it did look like some sort of invasive that was asking to be pulled out. But we now know to be more careful!
- The Spicebushes (*Lindera benzoin*) had very plump buds – just on the verge of opening-up.
- The Spring Azure Butterfly is described by the Missouri Department of Conservation as "our earliest native butterfly to emerge from overwintering pupae". And we found it!
- There was a very large tree standing apart from the others. It had moss growing on one side. John pointed to it and said: "That's the North side." It's pleasant when pieces of the puzzle fit together so nicely.
- We found a cute, edible fungus called "Wood Ears" growing on a tree. That's exactly what it looks like. It gets extra points for having the meaningful genus name "*Auricularia*" (Latin for "Little Ears")
- We found an *Ampelopsis cordata* (Raccoon Grape) vine that impressed John as being one of the largest he's ever seen.
- Kathy Bildner and Renee were talking about a Missouri Prairie Foundation webinar they enjoyed in which the presenter talked fast to define the many terms a person might encounter when using a dichotomous key. They described it as a whole semester rolled into one presentation. If this sounds like a fun challenge, you can experience it HERE.
- There were lots of little green leaves pushing up from the soil. Most were just cotyledons that were not yet identifiable. But some already had their true leaves, including Jacob's Ladder (*Polemonium reptans*) and Bedstraw (*Galium*).
- We always explore a large, mossy boulder that sits near the trail. An interesting plant we found growing on it this time was the Walking Fern (*Asplenium rhizophyllum*).
- Later in the summer, this place will be rich with *Rudbeckia laciniata* flowers. Kathy Bildner found many of last year's tall, dried stems and described it as a "forest of Goldenglow". It's a very well-regarded plant. The late great Joe Hollis made a short but useful video of it HERE.
- On the way out of the park, George spotted an American Elm (*Ulmus americana*) tree and stopped his car to get a few flowers from a low-hanging branch. George is doing a photographic study of Elm flowers which are usually out-of-sight and out-of-mind because they're so out-of-reach. He got started on it last week when he encountered a flowering American Elm branch during our Beckemeier walk. At home he was surprised when he sliced open an Elm flower's ovary and found some kind of tiny larvae munching away! He took a photo and sent it to Ted, who suggested that they are probably fly larvae. Ted forwarded the photo to a dipterist friend who confirmed it. Although it will be quite a while before his Elm study is done, you can find a collection of George's many other photographic studies HERE. You can find some of Ted's stunning photographs HERE.

PARTICIPANTS:
There were 20 of us botanists today, who are (in alphabetical order):
Renee Benage, Kathy Bildner, Steve Bizub, Jerry Castillon, Wayne Clark, Tom Hardy, Lia Heppermann, Michael Laschober, Sharon Lu, Ted & Lynn MacRae, Len Meier, Tayebeh Moayedzadeh, Burt Noll, John Oliver, Fr. Sullivan, Kathy Thiele, Mark & Deb Tolcou, and George Van Brunt.