St. François State Park (Bottomland)

March 10, 2025

BOTANICAL NAME (with genus pronunciation)	FAMILY [CC] = Coefficient of Conservatism	COMMON NAME
Acer saccharinum (AY-sr)	Sapindaceae [CC2]	Silver Maple
Aesculus glabra (ESS-kyoo-luss)	Sapindaceae [CC5]	Ohio Buckeye
Alliaria petiolata (al-lee-AYR-ee-uh)	Brassicaceae [introduced]	Garlic Mustard
<u>Aristolochia tomentosa</u> (= best childbirth, hairy) (uh-RISS-toe-LO-kee-uh)	Aristolochiaceae [CC7]	Woolly Pipevine
Asimina triloba (uh-SIM-in-uh)	Annonaceae [CC5]	Pawpaw
<u>Blephilia hirsuta</u> (bleh-FILL-ee-uh)	Lamiaceae (Nepetoideae subfamily) [CC7]	Hairy Pagoda Plant / Wood Mint
<u>Cardamine hirsuta</u> (kar-DAM-ih-nee)	Brassicaceae [introduced]	Hairy Bittercress
<u>Cardamine parviflora</u> (kar-DAM-ih-nee)	Brassicaceae [CC3]	Small-Flowered Bittercress
<u>Claytonia virginica</u> (klay-TOE-nee-uh)	Montiaceae [CC3]	Spring Beauty
<u>Cyrtomium falcatum</u> () (kr-TOE-mee-um / fal-KAY-tum)	Dryopteridaceae [intro]	Japanese Holly-Fern
<u>Descurainia pinnata</u> (des-kr-RAY-nee-uh)	Brassicaceae [CC2]	Western Tansymustard
Erigenia bulbosa () (ayr-ih-JEE-nee-uh)	Apiaceae [CC6]	Harbinger of Spring
Glechoma hederacea (gleh-KOE-muh)	Lamiaceae [introduced]	Ground Ivy / Creeping Charlie
<u>Gymnocladus dioicus</u> (jim-no-KLAY-dus)	Fabaceae (Caesalpinioideae subfam.) [CC6]	Kentucky Coffeetree
<u>Lindera benzoin</u> (lin-DEER-uh)	Lauraceae [CC5]	Spicebush
<u>Mertensia virginica</u> (mr-TEN-see-uh)	Boraginaceae [CC6]	Virginia Bluebells
Polymnia canadensis (po-LIMM-nee-uh)	Asteraceae (Polymnieae tribe) [CC6]	Whiteflower Leafcup / Whiteflower Bearsfoot
Quercus macrocarpa (KWERK-us)	Fagaceae [CC4]	Bur Oak
Sambucus canadensis (sam-BOO-kuss)	Adoxaceae [CC2]	Black Elderberry
Toxicodendron radicans (TOCK-see-ko-DEN-dron)	Anacardiaceae [CC1]	Poison Ivy
Tradescantia subaspera (trad-eh-SKANT-ee-uh)	Commelinaceae [CC8]	ZigZag Spiderwort

NOTES

<u>WHERE WE WALKED</u>: We met at the far end of the first large parking lot – quite close to where our "trail" (note the quotes) begins. We visited this exact same area 53 weeks ago (proof <u>HERE</u>).

St. Francois State Park is famous for its diversity. We know exactly where to find Bunchflowers on the "Swimming Deer Trail". We know exactly where to find *Hepatica* flowers on the "Mooners Hollow Trail". We know exactly where to find the fens in an area so special it's been designated the "Coonville Creek Natural Area" by the Missouri Conservation Department. So with all these lauded places in the park to choose from, why do we usually end-up here in a junky area that regularly floods and doesn't even have a name? Even the ticks don't like it here. Well, over the years we've learned that there's a hidden beauty here – something that the park's brochure-writers, and trail-namers, (and ticks) have yet to discover.

GARLIC MUSTARD or CREEPING CHARLIE?

Why are these plants so difficult to tell apart? They're not even in the same family! Why do we have to crouch down and actually *taste* them to figure out which is the mustard and which is the mint? Yes, in a couple of weeks it'll be easy. The mustard will be upright and the mint will be a ground-hugging vine. Anybody – even a white-coated lab botanist – would be able to tell them apart. But until then, while they're still only a couple of inches tall, there must be a way to differentiate them by leaf alone. And there is!

The little leaves of *Alliaria petiolata* (Garlic Mustard) have veins that are **mostly pinnate** (with secondary veins intersecting along the midvein).

The little leaves of *Glechoma hederacea* (Creepy Charlie) have veins that are **mostly palmate** (with most secondary veins forking from the midvein near the leaf base). Also, the puffy tissue between the veins tends to form a pillowy NBC peacock display. Charlie's such a show-off!

BOA CONSTRICTOR CLUB:

Usually we identify climbing vines in the winter either by the direction and location of their "hairs" (adventitious roots), or by the location and pattern of their tendrils. But today John showed us an easy-to-see third way: Is the vine wrapping around the tree like a boa constrictor?

We came upon such a circling vine about 10 minutes into our walk. At first we assumed it was a Bittersweet. But then we noticed that there were fine, parallel striations in the bark along the length of the vine, plus a Pipevine fruit high above (which clinched the identification).

Vines that encircle a tree can girdle and kill it. So far we have 2 vines on our terrorist-watch-list: Bittersweet and Pipevine. But last month at Lower Meramec County Park we were introduced to a 3rd wrap-around vine, the beautiful Wisteria. (You too, Wisteria? Say it ain't so!) Although there may be more, here are the 3 most prominent members of the St. Louis Boa Constrictor Club:

- *Celastrus* (the introduced *C.orbiculatus* or our native *C.scandens*) = Bittersweet
- Aristolochia tomentosa = Woolly Pipevine (a native basal-angiosperm)
- *Wisteria frutescens* = American Wisteria (a native in the bean family)

DISCOVERY!

When we neared the parking lot after our walk, Burt and John Karel were already there sitting on a bench. John Karel asked the friendly rhetorical question: "Did you find any new species – break any county records?" He surely was not expecting John Oliver's answer: "Well, as a matter of fact... yes!"

This reply was made possible thanks to David Steinmeyer's sharp eye and tenacity. Up in a rock crevice David had spotted a plant that he didn't quite recognize. Instead of ignoring it (as many of us would have done) he stuck with it. He took a photo and showed it around. Soon Kathy Bildner, John and others got involved in solving the puzzle. Eventually it was identified as a type of ornamental "Japanese Holly Fern", *Cyrtomium falcatum*. With the changing climate, this plant has been travelling north over the years. Now it's here.

What's going to happen now? David graciously turned-down the \$500,000 prize (just joking). Fortunately Steve Turner (of <u>MissouriPlants.com</u> fame) was with us. He's had lots of experience reporting new plants, so he'll know what to do to get David's discovery into the books.

Non-native plants usually aren't much to get excited about, but this one might be an exception. It's a pretty fern with arching fronds that have somewhat holly-like pinnae. (<u>HERE</u>). Even more eye-catching are the sori on the underside of its fertile fronds. They look like jewels! (<u>HERE</u>). Evidently others find it attractive too. It has won the UK's "Royal Horticultural Society's *Award of Garden Merit*".

SHORT OBSERVATIONS:

• POWER OF WATER: Walking near the Big River we noticed detritus above our heads in all the trees. There must have been some whopper of a flood here! Then we found a wooden picnic table with connected benches in a place where nobody would ever think of having a picnic. Less than a minute later we found (believe it or not) an industrial-sized, steel trash dumpster wedged in a clump of young trees. It was dark blue in color and looked rather new. The disposal company's name and telephone number were clearly visible in white lettering. Renee and her friends joked that they should call the number. Pretending to call, she spoke with a nonchalant, light-hearted voice: "Hello. We would like to have our dumpster emptied." Everybody laughed.

- FLOWER COUNT: Today we found 4 flowers in bloom (5 counting the Silver Maple, and 6 if *Cardamine parviflora* was mixed in with the *Cardamine hirsuta*). They are: Harbinger of Spring, *Cardamine hirsuta*, Creeping Charlie, and Spring Beauty. Last year, even though we were here a week earlier, we found 3 more flowers (*Veronica polita*, Lowland Rue-Anemone, and Bloodroot). But like John said, Spring is running a little late this year.
- TICKS: They're already active! Although we had no sightings of them today, both David and Len mentioned that they had been visited by ticks in recent days.
- HARBINGER OF SPRING: Yes, we found it! What a relief! Finding it is a necessary late-winter task that we are obliged to do like cleaning-out the gutters. To have NOT found it would have been a bad omen. But now the gates of spring have opened and we can walk through. George reminded us that *Erigenia bulbosa* is in the carrot family Apiaceae. That's important to note. Many of us would see it's tiny (*very* tiny) white flowers and assume it's in the mustard family. But with a hand lens you can count its 5 petals. (The crucifers only have 4 petals shaped like a cross.) And if you have a nuclear-powered hand lens, you can see that each flower is part of an umbel and that umbel is part of another umbel. A compound umbel! It's just like Queen Ann's Lace and all of our other carrot-family friends that we'll be reuniting with in the upcoming weeks (list HERE).
- PHOTOS: Kathy Bildner and Steve Turner have both shared their photographs of today, which you can find on our Google Drive (HERE).
- TO BE A NATURALIST: It's hard to know the plants, there are so many of them. Adding the birds and insects and geology just seems impossible. Yet some in our group have gone through that door and are ascending the highest of all peaks: to be a naturalist.

Don Meier says: "There's a bluebird singing over there." His brother Len replies; "I hear it."

Ted MacRae picks up a large black folding-door spider and introduces it to us as a male "Antrodiaetus unicolor". He explains that it's a primitive spider related to the tarantulas. It constructs silken tubes underground and waits at the burrow entrance at night for prey to wander by.

Kathy Thiele hears birdcalls and exclaims that "the Bluejays rule the neighborhood!".

Wayne knowingly examines a piece of moss.

John Oliver notices tiny flies pollinating the Harbingers of Spring.

Don Meier holds a large piece of Druzy Quartz for Gisella to photograph.

Those of us who haven't yet been able to open the Naturalist's Door look up at all of you through our little windows with gratitude and wonder.

PARTICIPANTS:

There were 20 of us botanists today, who are (in alphabetical order):

Gisela Baner, Renee Benage, Kathy Bildner, John Christensen, Wayne Clark, Christine Ellis, Ann Esswein, Karen Gabbert, John Karel, Michael Laschober, Ted MacRae, Don Meier, Len Meier, Burt Noll, John Oliver, David Steinmeyer, Ruth Tenbrink, Kathy Thiele, Steve Turner, and George Van Brunt.