Fults Hill Prairie

September 30, 2024

	BOTANICAL NAME (with genus pronunciation)	**FAMILY** [CC] = Coefficient of Conservatism	**COMMON NAME**
☐	*Agalinis skinneriana* (agg-uh-LY-niss)	Orobanchaceae [CC7]	Pale Agalinis
☐	*Agalinis tenuifolia* (agg-uh-LY-niss)	Orobanchaceae [CC4]	False Foxglove / Gerardia
☐	*Agrimonia pubescens* (ag-grim-MO-nee-uh)	Rosaceae [CC4]	Downy Agrimony
☐	*Andropogon gerardi* (an-dro-PO-gon)	Poaceae (Panicoideae subfamily) [CC5]	Big Bluestem / Turkeyfoot
☐	*Arnoglossum atriplicifolium* (awr-no-GLOSS-um)	Asteraceae (Senecioneae tribe) [CC4]	Pale Indian Plantain
☐	*Asplenium platyneuron* (uh-SPLEE-nee-um)	Aspleniaceae [CC4]	Ebony Spleenwort
☐	*Bidens bipinnata* (BY-denz)	Asteraceae (Heliantheae tribe) [introduced]	Spanish Needles
☐	*Bouteloua curtipendula* (boo-tuh-LOO-uh)	Poaceae (Chloridoideae subfamily) [CC7]	Sideoats Grama
☐	*Brickellia eupatorioides* (brick-ELL-ee-uh)	Asteraceae (Eupatorieae tribe) [CC6]	False Boneset
☐	*Campsis radicans* (KAMP-sis)	Bignoniaceae [CC3]	Trumpet Vine
☐	*Carya texana* (KAYR-ee-uh)	Juglandaceae [CC5]	Black Hickory
☐	*Chamaecrista fasciculata* (kam-ee-KRISS-tuh)	Fabaceae (Caesalpinioideae subfam) [CC2]	Partridge Pea
☐	*Dalea candida* (DAY-lee-uh)	Fabaceae (Faboideae subfamily) [CC8]	White Prairie Clover
☐	*Dalea purpurea* (DAY-lee-uh)	Fabaceae (Faboideae subfamily) [CC8]	Purple Prairie Clover
☐	*Deparia acrostichoides* (deh-PAIR-ee-uh)	Athyriaceae [CC10]	Silvery Glade Fern
☐	*Elaeagnus umbellata* (el-ee-AG-nus)	Elaeagnaceae / Rosales [introduced]	Autumn Olive
☐	*Elymus canadensis* (ELL-eh-muss)	Poaceae (Pooideae subfamily) [CC5]	Canada Wildrye
☐	*Eragrostis spectabilis* (ayr-uh-GROSS-tiss)	Poaceae (Cloridoideae subfamily) [CC3]	Purple Lovegrass
☐	*Eupatorium altissimum* (yoo-puh-TOR-ee-um)	Asteraceae (Eupatorieae tribe) [CC3]	Tall Boneset
☐	*Euphorbia corollata* (yoo-FOR-bee-uh)	Euphorbiaceae [CC3]	Flowering Spurge
☐	*Glandularia canadensis* (gland-yoo-LAYR-ee-uh)	Verbenaceae [CC5]	Rose Verbena
☐	*Hydrastis canadensis* (hy-DRASS-tiss)	Ranunculaceae [CC6]	Goldenseal
☐	*Hypericum sphaerocarpum* (hy-PAYR-i-kum)	Hypericaceae [CC5]	Round-Fruited St. John's Wort
☐	*Lespedeza capitata* (less-peh-DEE-zuh)	Fabaceae (Faboideae subfamily) [CC6]	Round-Headed Bush-Clover
☐	*Lespedeza frutescens* (less-peh-DEE-zuh)	Fabaceae (Faboideae subfamily) [CC5]	Shrubby Bush-Clover
☐	*Morus rubra* (MOHR-us)	Moraceae [CC4]	Red Mulberry
☐	*Passiflora lutea* (pass-i-FLOR-uh)	Passifloraceae [CC4]	Yellow Passionflower
☐	*Persicaria virginiana* (pr-seh-KAYR-ee-uh)	Polygonaceae [CC1]	Jumpseed / Virginia Knotweed
☐	*Polymnia canadensis* (po-LIMM-nee-uh)	Asteraceae (Polymnieae tribe) [CC6]	Whiteflower Leafcup / Whiteflower Bearsfoot

☐	*Quercus alba* (KWERK-us)	Fagaceae [CC4]	White Oak
☐	*Ratibida pinnata* (ruh-TIBB-i-duh)	Asteraceae (Heliantheae tribe) [CC4]	Gray-Headed Coneflower
☐	*Rhus copallinum* (ROOS)	Anacardiaceae [CC2]	Winged Sumac
☐	*Rhus glabra* (ROOS)	Anacardiaceae [CC1]	Smooth Sumac
☐	*Rubus occidentalis* (ROO-bus)	Rosaceae [CC3]	Black Raspberry
☐	*Rudbeckia missouriensis* (rood-BECK-ee-uh)	Asteraceae (Heliantheae tribe) [CC6]	Missouri Coneflower
☐	*Sassafras albidum* (SASS-uh-frass)	Lauraceae [CC2]	Sassafras
☐	*Sceptridium dissectum* (skep-TRIDD-ee-um)	Ophioglossaceae [CC5]	Grape Fern
☐	*Silene stellata* (sy-LEE-nee)	Caryophyllaceae [CC5]	Starry Campion
☐	*Silphium perfoliatum* (SILL-fee-um)	Asteraceae (Heliantheae tribe) [CC3]	Cup Plant
☐	*Smilax bona-nox* (SMY-lax)	Smilacaceae [CC3]	Saw Greenbriar
☐	*Solidago altissima* (so-lid-DAY-go)	Asteraceae (Astereae tribe) [CC1]	Tall Goldenrod
☐	*Solidago buckleyi* (so-lid-DAY-go)	Asteraceae (Astereae tribe) [CC8]	Buckley's Goldenrod
☐	*Solidago nemoralis* (so-lid-DAY-go)	Asteraceae (Astereae tribe) [CC2]	Gray Goldenrod / Old Field Goldenrod
☐	*Solidago speciosa* (so-lid-DAY-go)	Asteraceae (Astereae tribe) [CC7]	Showy Goldenrod
☐	*Solidago ulmifolia* (so-lid-DAY-go)	Asteraceae (Astereae tribe) [CC4]	Elmleaf Goldenrod
☐	*Sorghastrum nutans* (sor-GAS-strum)	Poaceae (Panicoideae subfamily) [CC4]	Indian Grass
☐	*Staphylea trifolia* (staff-ill-LEE-uh)	Staphyleaceae [CC5]	American Bladdernut
☐	*Stenaria nigricans* (sten-AYR-ee-uh)	Rubiaceae [CC5]	Diamondflowers
☐	*Symphyotrichum anomalum* (SIMM-fee-o-TRY-kum)	Asteraceae (Astereae tribe) [CC6]	Manyray Aster
☐	*Symphyotrichum drummondii* (SIMM-fee-o-TRY-kum)	Asteraceae (Astereae tribe) [CC4]	Drummond's Aster
☐	*Symphyotrichum ericoides* (SIMM-fee-o-TRY-kum)	Asteraceae (Astereae tribe) [CC5]	White Heath Aster
☐	*Symphyotrichum lateriflorum* (SIMM-fee-o-TRY-kum)	Asteraceae (Astereae tribe) [CC3]	Calico Aster
☐	*Symphyotrichum oblongifolium* (SIMM-fee-o-TRY-kum)	Asteraceae (Astereae tribe) [CC6]	Aromatic Aster
☐	*Symphyotrichum oolentangiense* (SIMM-fee-o-TRY-kum)	Asteraceae (Astereae tribe) [CC7]	Skyblue Aster
☐	*Symphyotrichum patens* (SIMM-fee-o-TRY-kum)	Asteraceae (Astereae tribe) [CC5]	Spreading Aster or Late Purple Aster
☐	*Symphyotrichum pilosum* (SIMM-fee-o-TRY-kum)	Asteraceae (Astereae tribe) [CC0]	Hairy Aster, Frost Aster, Awl Aster
☐	*Symphyotrichum sericeum* (SIMM-fee-o-TRY-kum)	Asteraceae (Astereae tribe) [CC9]	Silky Aster
☐	*Symphyotrichum turbinellum* (SIMM-fee-o-TRY-kum)	Asteraceae (Astereae tribe) [CC6]	Turbinate Aster / Prairie Aster
☐	*Tilia americana* (TILL-ee-uh)	Malvaceae [CC5]	Basswood
☐	*Veronicastrum virginicum* (vr-ron-ik-KASS-strum)	Plantaginaceae [CC7]	Culver's Root

NOTES

WHERE WE WALKED:
We met in the small Fults Hill Prairie parking lot, double-parking where necessary. Then after procrastinating for as long as we could, we faced the steps and began climbing – all 212 of them (yes, I counted!), stopping to take a breather from time to time.
On the way up, we passed quite a few Bladdernut trees/shrubs (*Staphylea trifolia*). These peculiar plants are native to the St. Louis area, but they don't have any next-of-kin nearby. We don't have any other species in the *Staphylea* genus. In fact we don't have any other species in the Staphyleaceae family! And believe it or not, we don't even have any other species in the entire Crossosomatales (fun to say) order! So we should appreciate our unique Bladdernut because it's come a long, long way to be here. (Factoid: their seeds take 3 years to germinate.)

SCEPTRIDIUM DISSECTUM: John mentioned that he has never seen so many of these Cutleaf Grape Ferns in one place. They're not like other ferns. They (and their St. Louis siblings – the Limestone Adder's Tongue, and the Rattlesnake Fern) come from a more ancient family, the Ophioglossaceae ("Adder's Tongue" family). They are "eusporangiate" ferns which have thick-walled sporangia packed with lots of spores. (In contrast, the more modern ferns are "leptosporangiate", and have thin-walled sporangia containing far fewer spores). Our Cutleaf Grape Fern has other tricks up its pinnae:

- It only sends up one frond per year (strangely in July, and dying back the following May)
- That single frond will be one of two forms: it might be of the normal "*obliquum*" form, or it might be of the skeletonized "*dissectum*" form. We were lucky to see both forms right next to each other! (And unless I heard incorrectly, John mentioned that his friend George Yatskievych grew the perennial fern in a pot. In some years it produced an *obliquum* frond, and in other years it produced a *dissectum* frond. That's how he knew for sure they were the same species.)
- For fall and winter, the still-living, still-photosynthesizing frond turns from green to a bronze color, making it harder to see in the fallen leaves.
- The plant *depends* on mycorrhizal associations (roots and fungi in a mutualistic relationship). That's probably why the pretty plant isn't grown in gardens. Somebody in our group compared it to orchids.
- The fertile "stalk of grapes" part of the frond looks very different from the sterile "ferny" part of the frond. In fact they look like 2 different fronds, but they're actually connected down near the rhizome. ("Dimorphic" is probably the term we should be using, but in a sense the "*obliquum* vs. *dissectum*" forms are also dimorphic, so let's not invite confusion.)
- Gwyn pointed-out the similarity of our Cutleaf Grape Fern to its sibling, the Rattlesnake Fern (*Botrypus virginianus*). However the two plants can be differentiated. The Rattlesnake is a type of grape fern that doesn't keep its leaves throughout the winter. Instead, its new leaves emerge in April and wither in late summer. Also, the "grape" (fertile) part of the frond emerges from the vegetative (sterile) part of the frond way up above the vegetative part, instead of down by the rhizome. Also, the Rattlesnake is a taller plant (2ft) than the Cutleaf Grape (1ft). Finally, the Rattlesnake's petiole has a pink color down at its base instead of light green.

RUSTY HARROW:
We were surprised to find an old rusty farm implement with large persimmon trees growing through it. What a mystery! It strongly suggests that there was farming up here long ago. John imagined that a farmer must have left the harrow (HAIR-oh) against the trees many decades ago. Like an old candle, the tree bark "melted" around its metal parts. Kathy read it differently. She suggested that the trees appeared later. After all, why would there be trees in a farm field? This leads to a botanical question. Would a tree "melt" against an object already there, or would it only happen when the cambium reacts and tries to compartmentalize a foreign object that impinges upon it later?

SHORT OBSERVATIONS:

- We found a jaw-dropping 10 species of Aster at this one site! That's more than half of the 18 that the whole St. Louis area has [St. Louis list HERE].
- Gwyn found an American Painted Lady butterfly.

- John seemed especially happy to have found a “Silvery Glade Fern” (*Deparia acrosticoides*) which he was able to recognize because it had larger leaflets (pinnae) in the middle of the frond and smaller ones at the two ends, and also because its under-leaf sori had a herringbone arrangement.
- The Silky Aster (*Symphyotrichum sericeum*) impressed us with its tiny silvery hairs on its small leaves that reflected light.
- Up so high, it was unexpected to find so many moisture-loving species (such as Pawpaw). We were all happy to have visited this diverse place!

PARTICIPANTS:
There were 11 of us botanists today, who are (in alphabetical order):
Prem Barton, Tom Hardy, Michael Laschober, Burt Noll, John Oliver, Mark Peters, David Steinmeyer, Tayebeh, Kathy Thiele, Dave Tylka, and Gwyn Wahlmann.