

Cuivre River – Lakeside Trail

December 23, 2024

	BOTANICAL NAME (with genus pronunciation)	FAMILY [CC] = Coefficient of Conservatism	COMMON NAME
<input type="checkbox"/>	Adiantum pedatum (ay-dee-ANT-um)	Pteridaceae [CC6]	Northern Maidenhair Fern
<input type="checkbox"/>	Asclepias purpurascens (uh-SKLEE-pee-us)	Apocynaceae [CC6]	Purple Milkweed
<input type="checkbox"/>	Asclepias syriaca (uh-SKLEE-pee-us)	Apocynaceae [CC0]	Common Milkweed
<input type="checkbox"/>	Carya cordiformis (KAYR-ee-uh)	Juglandaceae [CC5]	Bitternut Hickory
<input type="checkbox"/>	Cirsium altissimum (SR-see-um)	Asteraceae (Cardueae tribe) [CC4]	Tall Thistle
<input type="checkbox"/>	Claytosmunda [Osmunda] claytoniana () (klay-tos-MUN-duh)	Osmundaceae [CC7]	Interrupted Fern (We didn't find this, but we were looking for it)
<input type="checkbox"/>	Cornus florida (syn. <i>Benthamidia florida</i>) (KOR-nuss)	Cornaceae [CC5]	Flowering Dogwood
<input type="checkbox"/>	Dasistoma macrophylla (da-sis-STO-muh)	Orobanchaceae [CC5]	Mullein Foxglove
<input type="checkbox"/>	Dioscorea villosa (dy-o-SKOR-ee-uh)	Dioscoreaceae [CC5]	Wild Yam
<input type="checkbox"/>	Elaeagnus umbellata (el-ee-AG-nus)	Elaeagnaceae / Rosales [introduced]	Autumn Olive
<input type="checkbox"/>	Equisetum hyemale (eck-weh-SEE-tum)	Equisetaceae [CC3]	Rough Horsetail (conelike strobili)
<input type="checkbox"/>	Galium aparine (GAY-lee-um)	Rubiaceae [CC0]	Bedstraw
<input type="checkbox"/>	Galium triflorum (GAY-lee-um)	Rubiaceae [CC4]	Fragrant Bedstraw
<input type="checkbox"/>	Ludwigia alternifolia (lood-WIG-ee-uh)	Onagraceae [CC4]	Seedbox
<input type="checkbox"/>	Melanthium [Veratrum] virginicum () (mel-ANN-thee-um)	Melanthiaceae [CC9]	Virginia Bunchflower
<input type="checkbox"/>	Monotropa uniflora () (mono-TRO-puh)	Ericaceae [CC8]	Indian Pipe
<input type="checkbox"/>	Onoclea sensibilis (o-NOCK-lee-uh)	Onocleaceae [CC6]	Sensitive Fern
<input type="checkbox"/>	Platanus occidentalis (PLATT-tuh-nuss)	Platanaceae [CC3]	Sycamore
<input type="checkbox"/>	Polystichum acrostichoides (po-LISS-tick-um)	Dryopteridaceae [CC5]	Christmas Fern
<input type="checkbox"/>	Ratibida pinnata (ruh-TIBB-i-duh)	Asteraceae (Heliantheae tribe) [CC4]	Gray-Headed Coneflower
<input type="checkbox"/>	Rhamnus cathartica () (RAM-nuss)	Rhamnaceae / Rosales [introduced]	European Buckthorn
<input type="checkbox"/>	Rhus aromatica (ROOS)	Anacardiaceae [CC4]	Fragrant Sumac
<input type="checkbox"/>	Rosa carolina (RO-zuh)	Rosaceae [CC4]	Carolina Rose
<input type="checkbox"/>	Rudbeckia missouriensis (rood-BECK-ee-uh)	Asteraceae (Heliantheae tribe) [CC6]	Missouri Coneflower
<input type="checkbox"/>	Sassafras albidum (SASS-uh-frass)	Lauraceae [CC2]	Sassafras
<input type="checkbox"/>	Sceptridium dissectum (skep-TRIDD-ee-um)	Ophioglossaceae [CC5]	Grape Fern
<input type="checkbox"/>	Silphium integrifolium (SILL-fee-um)	Asteraceae (Heliantheae tribe) [CC4]	Rosinweed
<input type="checkbox"/>	Toxicodendron radicans (TOCK-see-ko-DEN-dron)	Anacardiaceae [CC1]	Poison Ivy
<input type="checkbox"/>	Verbascum thapsus (vr-BASS-kum)	Scrophulariaceae [introduced]	Mullein

<input type="checkbox"/>	<u><i>Veronicastrum virginicum</i></u> (vr-ron-ik-KASS-strum)	Plantaginaceae [CC7]	Culver's Root
<input type="checkbox"/>	<u><i>Zanthoxylum americanum</i></u> (zan-tho-ZY-lum)	Rutaceae [CC4]	Prickly Ash

NOTES

WHERE WE WALKED: We met at the Visitor's Center parking lot (the building was closed), discussed which trail to walk, and then drove in a caravan to Lincoln Lake. The Lakeside Trail is 3.6 miles long, but at our speed we wouldn't have finished it before Christmas, so we cut it short. It had stopped raining and the sun was breaking through. The weather was mild for the end of December – even exhilarating. We walked in a counter-clockwise direction around the lake, stopping for a long while to explore a rich, ferny area (where we made a mental note to return during the growing season), then continued for less than a mile before turning back.

PUZZLE:

It's funny how plants from different genera and even from different families can share similarities. Here's a list of 10 plants that we meet fairly regularly on our walks. Can you figure-out what they have in common? (The answer is revealed later.)

Chasmanthium latifolium (River Oats)
Desmodium rotundifolium (Roundleaf Tick-Trefoil)
Dichantherium latifolium (Broadleaf Panicgrass)
Dichantherium linearifolium (Slimleaf Panicgrass)
Eryngium yuccifolium (Rattlesnake Master)
Parthenium integrifolium (Wild Quinine)
Pseudognaphalium obtusifolium (Rabbit Tobacco)
Schizachyrium scoparium (Little Bluestem)
Silphium integrifolium (Rosinweed)
Sisyrinchium angustifolium (Blue-Eyed Grass)

FEATURED TREES:

We weren't exactly looking for them, but two trees caught our attention:

- *Rhamnus cathartica* (European Buckthorn): Although it's listed as a noxious weed in the 2 states directly north of us (Iowa and Minnesota), its [BONAP Map](#) shows the European Buckthorn to be quite rare in Missouri. It's only been recorded in 7 Missouri counties. One of those counties is Lincoln. And we found it!
 For those of us who had never seen one before, John pointed-out its **profuse branching**, its **thorns**, its tiny cigar-like **spurs** that only grow millimeters longer each year, its "mostly" **opposite** branching arrangement, its **dioecious** life cycle (male trees have no fruit, female trees have fruit with a purgative [strong laxative] effect), and its pairs of scaly **winter buds** that curve towards each other, resembling a deer hoof (whence the name "buckthorn"). John also told us about the iridescent yellow (male) Brimstone Butterfly that feeds on it in Europe. ("Brimstone" is an old name for "Sulfur".)
- *Zanthoxylum americanum* (Prickly Ash). Being in the citrus family, Prickly Ash is nowhere near being a true ash (which is in the olive family). Yet it is indeed "prickly" and it does indeed have compound leaves like an ash. John used the more interesting name "Toothache Tree". Eating parts of the plant will tickle the tongue and create a temporary numbness. (It's not too surprising that the "sichuan pepper" is in the same genus.) The slightly downward-curved prickles are like stipules because they appear in pairs at the nodes. Even though its [BONAP Map](#) shows it to be well established in our area, we unfortunately hardly ever see this interesting plant in St. Louis.

FEATURED FORBS:

To make it even, here are a couple of non-trees that caught our attention:

- *Verbascum thapsus* (Mullein): Actually we didn't even stop for poor Mullein – we just walked right by. But nobody can deny that we saw them. Being one of the only green plants, they're hard to miss. These so-called "toilet paper plants" have to put up with a lot of abuse. The plants are biennial, so they only have months left to live. Those thick, fuzzy, heavy-duty, ground-hugging leaves are packing away as much sun-energy as they can so

that this coming summer they can raise a tall, magnificent, yellow-flowering stalk. Such spectacular creatures! If only we could all go out so triumphantly!

- *Monotropa uniflora* (Ghost Pipes): Whoever recognized this dried-up little fellow hiding amidst the fallen leaves deserves a prize. A few months ago it was a fragile, white, mushroomy-type plant shaped like a soda-straw folded-over at the top (*monotropa* = one turn). At the end of the fold was one white flower (*uniflora*). Later the fold would unfold, the flower would develop into a capsule, and the whiteness would turn into blackness. Lots happening in this C7 perennial from the blueberry family! But wait, there's more. Without any chlorophyll for photosynthesis, it would need to get its sugars elsewhere. That "elsewhere" is fungi – but not just any fungi. It's not a decomposer like Beethoven. It needs to find "mycorrhizal" fungi like *Russula* mushrooms. Trees typically have a mutualistic relationship with mycorrhizal (= fungus + roots) fungi. The tree roots feed sugars to the fungi while the fungi feed water and minerals to the roots. The "Ghost Pipes" tap into this plumbing, contributing nothing. Mono**TROPA** is a parasitic hetero**TROPH**. [Note to self: it's easy to confuse "trope" with "troph". The former is from the Greek "*tropos*" meaning "a turning" (heliotrope, geotrope), while the latter is from the Greek "*trophos*" meaning "feeder" (autotroph, heterotroph).] Although we rarely see them, Ghost Pipes are found throughout the eastern half of the country as shown from its [BONAP Map](#).

CHRISTMAS FERN:

It seems that when a plant is given a name like "Tulip Tree" or "Christmas Fern", people see all kinds of tulip or Christmas-related features to explain the name. Today John stopped at a Christmas Fern and pointed to the little earlike lobe (auricle) bulging from the base of each pinna. He referred to it as "the top of Santa's boot". HD then referred to it as a Christmas stocking ("the Stockings Were Hung by the Chimney With Care..."). Then Kathy Bildner suggested that the name might have come from the pilgrims who used the evergreen fronds to make wreaths and to decorate their homes at Christmas.

For some reason, its botanical name "*Polystichum acrostichoides*" is really hard to remember. (Although "po-LISS-tick-um" sounds more polished, the nerdy "polly-STY-kum" better reflects its etymology, so we'll go with that.) The root "*stichum*" means "rows". So there must be "many rows" of something – not quite sure of what because there seems to be only 2 rows of sori. But there are other "*Polystichum*" species (known as "Holly" ferns), especially on the West Coast. So maybe the "many rows" genus name makes more sense with one of them. Our Bald Cypress has the botanical name "*Taxodium distichum*". Its species epithet "*distichum*" (two rows) probably refers to the 2 rows of tiny leaves (not leaflets) along each tiny stem (not rachis).

If all else fails, substitute the Christmas song lyrics "*Have Yourself a Merry Little Christmas*" with "*Have Yourself a Polysti-chum Christmas*". It works! At the very least it'll help us remember that "*Polystichum*" ends in "um", not the "ium" of countless other botanical names (including the 20 in our quiz above).

SHORT OBSERVATIONS:

- We had a new botanizer with us this morning! Nina Moser joined us. She's a plant enthusiast with a special interest in herbs. We hope she comes with us often. (She also carried a bag and picked-up litter along the way, so she's everybody's hero for sure!)
- Kathy Bildner took some useful photos for us and again shared them on her Google Drive page [HERE](#). One of the photos was of a Sensitive Plant that she found – *Onoclea sensibilis*. "Oh no, Clea! Don't be so sensitive!" (*no charge for that one*)
- We found a small tree with only one leaf left dangling from it (reminding us of the beloved O. Henry short story titled "The Last Leaf"). But that one leaf had silvery scales on its underside, which gave away the tree's identity as clearly as if it had a big "Autumn Olive" sign on it.
- We probably haven't heard the name "Culver's Root" (*Veronicastrum virginicum*) since last summer. But it seems like we were hearing it every 5 minutes today.

PARTICIPANTS:

There were 9 of us botanists today, who are (in alphabetical order):

Rick Armstrong, Kathy Bildner, Wayne Clark, HD Key, Michael Laschober, Nina Moser, John Oliver, David Steinmeyer, and George Van Brunt.