

Lower Meramec Park

February 3, 2025

	BOTANICAL NAME (with genus pronunciation)	FAMILY [CC] = Coefficient of Conservatism	COMMON NAME
<input type="checkbox"/>	Acer negundo (AY-sr)	Sapindaceae [CC1]	Boxelder
<input type="checkbox"/>	Ampelopsis cordata (am-pel-OP-sis)	Vitaceae [CC3]	Heartleaf Peppervine / Raccoon Grape
<input type="checkbox"/>	Campsis radicans (KAMP-sis)	Bignoniaceae [CC3]	Trumpet Vine
<input type="checkbox"/>	Carya illinoensis (KAYR-ee-uh)	Juglandaceae [CC7]	Pecan Hickory
<input type="checkbox"/>	Celtis occidentalis (SELL-tiss)	Cannabaceae / Rosales [CC3]	Hackberry
<input type="checkbox"/>	Forestiera acuminata () (for-ESS-tee-AYR-uh)	Oleaceae [CC6]	Swamp Privet
<input type="checkbox"/>	Fraxinus americana () (FRAX-i-nuss)	Oleaceae [CC4]	American Ash / White Ash
<input type="checkbox"/>	Gleditsia triacanthos (gleh-DITT-see-uh)	Fabaceae [CC2]	Honey Locust
<input type="checkbox"/>	Ilex decidua (EYE-lex)	Aquifoliaceae [CC5]	Possumhaw / Deciduous Holly
<input type="checkbox"/>	Lindera benzoin (lin-DEER-uh)	Lauraceae [CC5]	Spicebush
<input type="checkbox"/>	Nekemias arborea (neh-KEE-mee-us)	Vitaceae [CC7]	Peppervine
<input type="checkbox"/>	Populus alba (POP-yoo-lus)	Salicaceae [introduced]	White Poplar / Silver Poplar
<input type="checkbox"/>	Pyrus calleryana (PY-rus)	Rosaceae [introduced]	Callery Pear
<input type="checkbox"/>	Quercus lyrata (KWERK-us)	Fagaceae [CC8]	Overcup Oak
<input type="checkbox"/>	Smilax tamnoides [<i>S.hispida</i>] (SMY-lax)	Smilacaceae [CC3]	Bristly Greenbrier
<input type="checkbox"/>	Taxodium distichum (tax-O-dee-um / DIS-tick-um)	Cupressaceae [CC8]	Bald Cypress
<input type="checkbox"/>	Toxicodendron radicans (TOCK-see-ko-DEN-dron)	Anacardiaceae [CC1]	Poison Ivy
<input type="checkbox"/>	Wisteria frutescens (wis-STEER-ee-uh)	Fabaceae (Faboideae subfamily) [CC4]	American Wisteria

NOTES

WHERE WE WALKED:

We met at the Holzer Park Road lot and walked the paved Meramec Greenway Trail to the unpaved Tall Timbers Trail. It was a bit muddy – sometimes more than a bit – but everybody seemed to have shoes fit for the task. Its good that we took the unpaved trail because that’s where we found the Overcup Oak trees (*Quercus lyrata*), the object of our desire.

CALLERY PEAR:

John helped us identify at least 2 of these trees with their tiny, hard, inedible fruits. The Callery Pear (*Pyrus calleryana*) is a wild native of China and Taiwan. It’s a small, beautiful tree that is loaded with white flowers in the Spring and with colorful leaves in the Fall.

A number of cultivars were developed from this species. One of them is a special fellow named “Bradford”. Bradford turned-out to be an extremely popular, good-looking guy. Since there was only one Bradford, it’s no wonder that everybody wanted a clone of him. To make a clone, a Bradford Pear “scion” (upper part) is grafted onto an ordinary Callery Pear “rootstock” (lower part). It became a big business. Starting in the 60’s the Bradford clones were widely planted in our parks, along our streets, and in our shopping centers. Being clones, they’re all genetically identical.

As with half the flowers on earth, the flower of the Bradford Pear is **self-incompatible** – unable to fertilize itself. And since the Bradford Pear trees were all clones of each other, no Bradford Pear was able to fertilize another Bradford Pear. It was a perfect world.

But here comes the wrinkle: not all pear trees are Bradford Pear trees. The wild Callery Pear has many different cultivars. And when pollen from the non-Bradfords began fertilizing the true Bradfords (and vice-versa), the magical era of the Bradford Pear began to crumble.

Although the names “Callery” and “Bradford” have nowadays become nearly synonymous, it might not be technically accurate to use the name “Bradford” for the trees we find in our natural areas. Now that the plant has joined the company of Autumn Olive and Bush Honeysuckle in our woodlands, it should probably just be called a “Callery Pear”.

HACKBERRY PETIOLE GALL:

This was exciting. John drew our attention to a few solitary dead leaves dangling here and there from a young tree that was otherwise leafless. Those dead leaves each had a marble-sized growth on its petiole. The marble was a custom-built home that the hackberry tree had unwittingly built for a tiny **psyllid** (a “jumping plant-louse”) called *Pachypsylla venusta*. Adult jumping plant-lice look like miniature cicadas. They’re related to aphids, phylloxerans (of grape phylloxera fame), scale insects, and whiteflies. Ted opened a gall and found the nymph still inside, waiting for spring.

John explained that the developing gall had blocked the leaf’s abscission layer from going through the steps necessary to detach the leaf from its twig. (When it comes to aphids [a related insect] it’s interesting that some plants do the exact opposite. They trigger the abscission layer to abscise early so that the aphid-infested leaf drops to the ground while all the other leaves are still green and hard-at-work.)

Psyllids are very host-specific. *Pachypsylla venusta* is only found on hackberries (in our case probably sugarberry). What makes this so exciting is that as we looked around we could easily see these galls on lots of trees around us. The dead leaves were like flags drawing our attention to them. This is wonderful for those of us trying to identify plants. The only thing that could be MORE wonderful is if Mother Nature had assigned our psyllid to a Blackgum or to some other tree that is harder to identify.

SHORT OBSERVATIONS:

- **CRAGGY & SHREDDY:** Not once but twice we found an *Ampelopsis* (Peppervine) growing right next to a *Vitis* (Grape) vine. This allowed us to compare them side-by-side. They’re in the same family. In the summer they’re rather difficult to differentiate by leaf. But now without leaves they’re quite easy to tell apart both by bark and by density:
 - **Bark:** The *Ampelopsis* has very deeply-furrowed, craggy bark while the grape has thin, shreddy bark. (By the way, “thanks” to the person who used the word “shreddy” to describe the grapevine’s bark. It’s perfect. We could also use that word to describe the Hop-Hornbeam’s [*Ostrya*] bark.)
 - **Density:** When we shook the vines we noticed the heaviness of the dense grape vine as compared to the *Ampelopsis*’ lightness-of-being.
- **PEPPERVINE:** Speaking of *Ampelopsis (cordata)*, we found a second *Ampelopsis* species – the special C7 *Ampelopsis arborea*, now called *Nekemias arborea*. When its new leaves appear in a couple of months, they’ll be an impressive deep red color. The shape of its leaflets will look more like the unrelated Trumpet Vine’s leaflets than the related *Ampelopsis cordata* leaf.
- **PECAN:** On the “Tall Timbers Trail” we came upon a huge pecan tree that was snapped in half by a strong wind. It happens from time to time that strong winds will blow a tree over. But snap it in half? And it wasn’t a clean break. Its mighty trunk was shattered with monstrous splinters still sticking up like in some cartoon. We stared at it in wonder for quite a while. Laura preferred the term “microburst” to “derecho”. Jerry agreed, mentioning that in a derecho, the fallen trees all face the same direction.
(It seems relevant to note that pecan has a very hard wood. Its Janka rating is 1,820 lbf (pound-force). That’s harder than White Oak [1,360], and even harder than Hard Maple [1,450].)
- **PHOTOS:** Kathy Bildner has once again shared her photos with us on our group’s [GOOGLE DRIVE](#).
- **TED FINDS BEETLES:** Our entomologist returned a couple hours after our walk and hit the jackpot. He found a recently-fallen branch from an Overcup Oak that showed signs of active beetle infestation. Near it was a dead branch from a Swamp Privet bush that also showed signs of beetle infestation. (Both of these plants were of special interest to us today.) He was able to collect portions of both branches to take home so that he could rear

the beetles. He said that he has never reared anything from either of these species – and is not aware that any woodboring beetles have ever been reared from Swamp Privet. So he (and we) are curious to find out what emerges in the spring. (Ted’s webpage is [Beetles in the Bush](#).)

- REFORESTATION: At the intersection of the “Tall Timbers Trail” and the “Meramec Greenway Trail” is an old agricultural field that is being reforested by our Laura and other volunteers. They’ve already planted a couple hundred trees. A few from our group (including Sebastian, John, and Ted) walked over to the saplings to inspect them. They seemed impressed by the diversity of species. “Here’s a Bur Oak!” “Here’s a Swamp White!” They continued to shout-out names, including “Cottonwood”, “Sumac”, “Elm”, “Sycamore”, and “Kentucky Coffee”. Someday that old field is going to be a wooded wonderland.

PARTICIPANTS:

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

Brenda Adams, Kathy Bildner, Jerry Castillon, Wayne Clark, Ann Esswein, Sebastian Forward, Karen Gabbert, Tom Hardy, Michael Laschober, Ted MacRae, Len Meier, Tayebah Moayedzadeh, Burt Noll, John Oliver, David Steinmeyer, Kathy Thiele, Mark and Deb Tolcou, George Van Brunt, and Laura Yates.