

## Reaching to the heavens with tulip poplars

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One of the most majestic trees in Pennsylvania is the tulip poplar (*Liriodendron tulipifera*). You can easily identify tulips by their tall, straight trunks, gray-white grooved bark, and the tulip-shaped leaf that gives them their characteristic name.

In White's Woods, from 12th Street, walk up the hillside and keep to the left-side paths. There you will see a truly extraordinary and rare stand of mature tulip poplars. You will feel like you are in a cathedral standing under these magnificent trees. If you look on the ground around these trees in late May or early June, you may see the tulip tree's beautiful tulip flowers or flower

petals — bright yellow and orange.

Even though they are commonly called a poplar tree, tulip trees are in the magnolia family, and, thus, share some qualities with other magnolias, including the large leaves and showy flowers.

The tulip tree is characterized by an extremely tall and straight growth habit and is one of the tallest deciduous trees in North America. In extraordinary cases, they can grow up to 170-190 feet, although the average is still about 160 feet tall.

The base of the trunks often flares out and then meets the tall-growing trunk — the one name for them is “Fiddle Tree” as their root base and trunk can appear to look like a fiddle from a distance. In the fall, they have brilliant yellow foliage that is brighter but the same kind of yellow as their flowers earlier in the year. Younger branches are smooth and reddish and later these branches turn darker brown.

The tulip tree is considered a “mid-succession” tree from an ecological perspective. They are shade intolerant, so they grow fast and usually come into dominance 50 to 150 years after a forest regrows after being disrupted (fire, logging, etc.).

As the climax species slowly take over (oaks, hickories), they will decline. Thus, you can use the presence of tulip to help read the age of a forest and have a sense of a forest's history. Here in

Western Pennsylvania, this is a particularly useful bit of knowledge: we had almost 92 percent to 98 percent of the forest cover cut due to industrialization from about 1880 to 1920. Thus, we are in that 50 to 150-year range where we have many beautiful large stands of tulip trees.

Tulip is a very ancient tree representing older forms of tree life and are considered an “anachronistic” tree. The tulip tree has an older, less evolved seed pod than other more recent trees, which also accounts for its unique and showy flowers. We have fossils of ancient tulip trees from the Upper Cretaceous period (70 million to 100 million years ago); from that fossil record, we know that tulip once was much more widespread, but now only two species remain in the Liriodendron family: the North American Tulip Poplar tree and the Liriodendron Chinese, which grows in China and Vietnam.

It is likely that many tulips were destroyed in glaciation in the Pleistocene era. Because of this, they are quite distinctive here in the Eastern United States—no other tree has a leaf anything like the tulip, making them easy to identify when in flower.

The Native Americans used this tree extensively; one folk name for tulip translates as “Canoewood” which refers to the fact that many Native American tribes used the massive tulip tree trunks for making large dugout canoes (using fire-based methods). Captain John Smith in 1612 described these canoes as being 40 to 50 feet in length and able to carry 40 passengers.

Tulip poplar makes an excellent early to mid-season food source for bees, and you can sometimes find honey from tulip trees at local farmers’ markets. Tulip flowers also have some nectar that is in the cup that can be enjoyed directly—but best of luck trying to find low hanging flowers for you to enjoy.

I’ve only had a chance to taste this infrequently in my foraging travels because usually the flowers are 150 feet up the tree!

Speaking of foraging, you might get lucky and find morel mushrooms near or under these trees as tulip poplar trees are one of the common places that morels may grow in the spring.

All in all, tulip is a wonderful tree to get to know, spend time under, and enjoy in our beautiful local forests.

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*These columns are brought to you each month by the Indiana Gazette and Friends of White’s Woods to showcase the wonders of nature in our area.*