Welcome to the Fort River Trail!

Many years ago, this area was used as farm land. The trees that now live here are early pioneers, or early successional trees, meaning they are the first to put down their roots after an area has been disturbed, in this case by farming.

This bottomland hardwood forest is defined by the flood plains of the Fort River and the hardwood trees that grow in these alluvial soils, or soils that have been deposited by the river.

Today, we're helping Detective Ladybug identify many of the pioneer trees along the trail. She needs your help!

Use the tree identification clues you find along the trail to find the trees.

Helpful tips for Tree ID

Leaf shape may be the most obvious clue to use when identifying a tree in the summer.

Trees with needles or scales are coniferous, or evergreen trees. Trees with broad leaves are deciduous, and lose their leaves in the winter. Broadleaves come in many shapes and sizes.

Leaflets occur with several "mini leaves" occurring on one true leaf. This is called a compound leaf and is useful for identification.

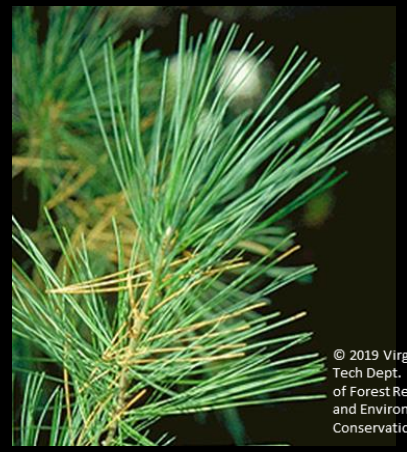
The bark of a tree is a great clue to identifying a tree, especially in winter when leaves are scarce. Look closely at the color, texture, and pattern of the bark.

In addition to leaves and bark, a tree's branching pattern can help you identify a tree.

opposite branching

alternate branching

whorled branching

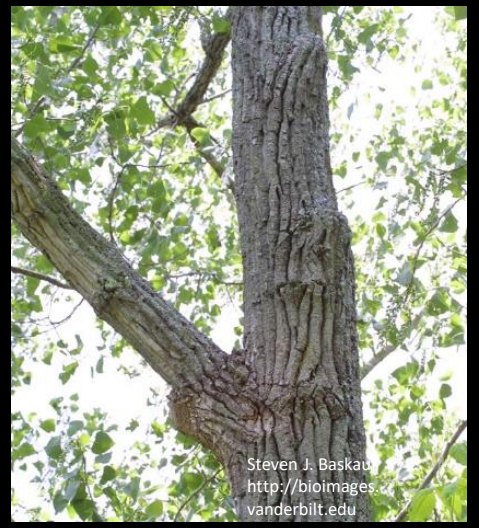


needles

lobed

triangular

compound leaf



Ridges, deep cracks

Smooth, white

Scaley

1. Pin Oak- Can you find me?

Quercus ellipsoidalis

My broad leaves have lobes that come to a point. Look closely for small bristles on the tips. Between narrow lobes, spaces are U-shaped

Branches are alternate- branches, twigs, buds and leaves do not grow directly across from one another, they alternate.

Fun Fact: Oaks can be difficult to identify, due to their similar characteristics. When looking for pin oaks, be sure to compare thoroughly with scarlet oaks and Northern reds.

2. Quaking Aspen- Can you find me?

Populus tremuloides

My leaves are heart-shaped, and "quake" in the wind when it blows because of their flat stems, or petioles.

My distinctive bark appears smooth and white, I have alternate branching.

I tend to grow in groups in recently disturbed areas. (In this case, farming has disturbed the ground)

Fun Fact: The quaking aspen can use it's seeds to reproduce, but more often it sends up new trees from its roots, allowing "clones" to sprout up quickly. The largest group of aspen trees lives in Utah. They are actually just one individual tree and its clones. This "Trembling Giant" occupies 106 acres and is considered one of the oldest known living organisms at an estimated 80,000 years old.

3. Big-tooth Aspen – Can you find me?

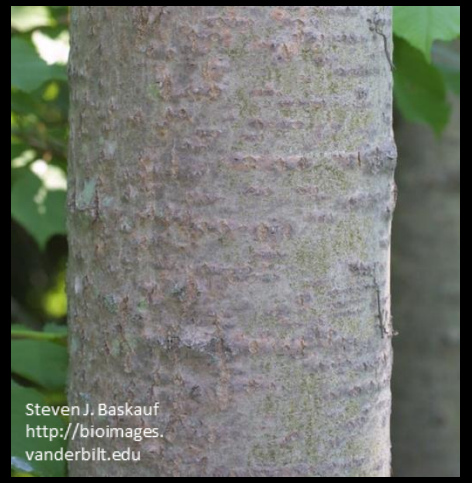
Populus grandidentata

My leaves are heart-shaped similarly to a quaking aspen, but my leaves have large teeth around the edge.

My bark is thin, and gray to brown in color. The small openings in the bark, called lenticels, are diamond shaped.

Fun Fact: Lenticels are small openings, like pores, on trunks or stems that allow gas exchange between the atmosphere and tree tissues.

Big tooth aspen



Compare with the quaking aspen leaf

4. Eastern cottonwood – can you find me?

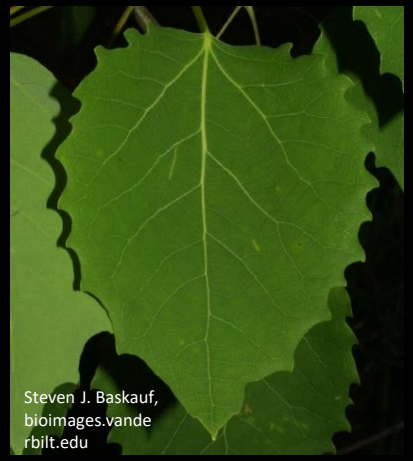
Populus deltoides

Leaves are similar to big-toothed aspen, but it's more coarsely-toothed.

Smooth gray bark gains thick ridges and deep furrows as it ages. Can you spot the differences in the Aspens and Cottonwood?

Fun Fact: Cottonwood are relatively short-lived for trees, but grow quickly, up to 100 feet, especially in riparian habitat. Riparian habitat are wetlands adjacent to rivers and streams.

Eastern cottonwood leaf and bark



Compare with big toothed aspen leaf and bark

Compare with quaking aspen leaf and bark

5. Black locust– can you find me?

Robinia pseudoacacia

My leaves are compound, with 6-20 egg-shaped leaflets on each leaf.

My branches alternate.

My bark has a flat, raised, diamond-shaped pattern.

I have thorns on my branches.

Fun Fact: Black locusts were often planted to act as natural fence posts because their wood is strong, hard, and durable with natural thorns to keep in cattle


Ron Thomas, wildflowerlens.com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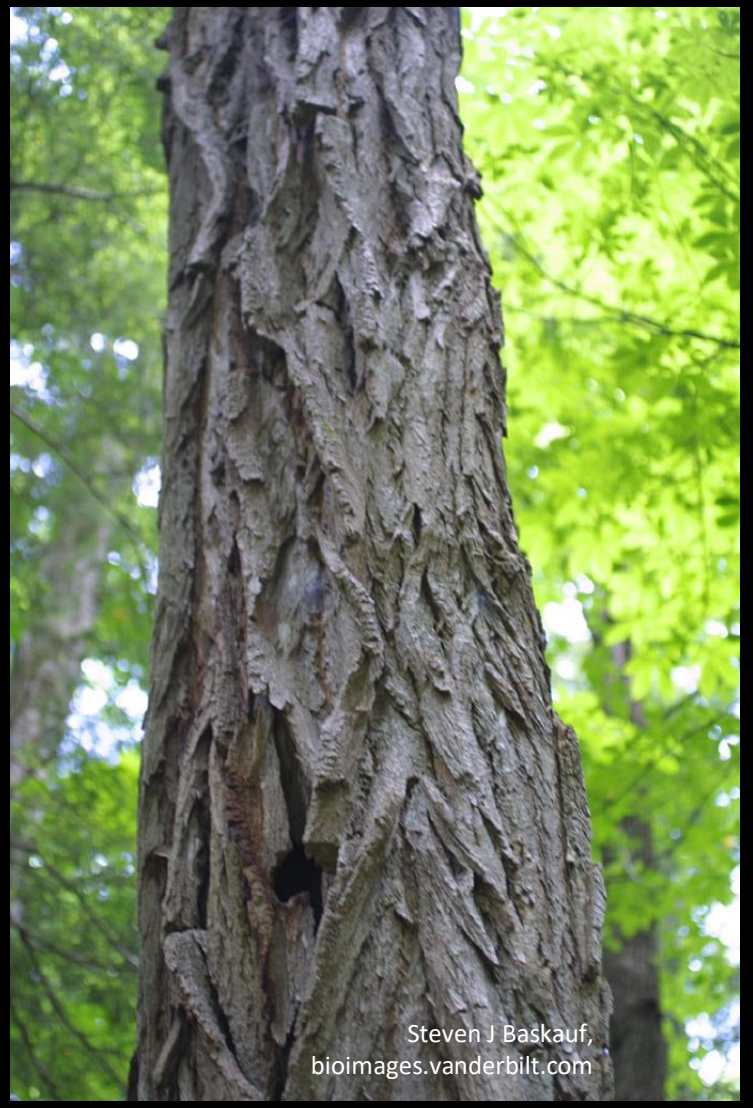

Steven J Baskauf, bioimages.vanderbilt.com

6. Red maple- can you find me?

Acer rubrum

My leaves typically have 3 lobes (sometimes 5), and the notches between the lobes are V-shaped.

My branching pattern is opposite. Like human arms that "branch" away from the body opposite of each other.

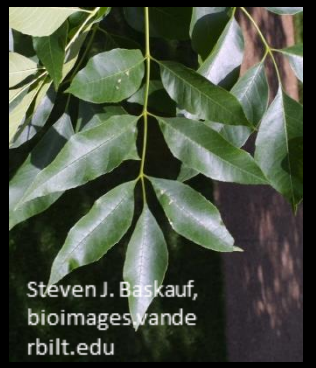
Fun Fact: MADCapHorse is an easy way to remember the trees that have the opposite branching pattern.

Maples, Ash, Dogwood, Caprifoliacae (honeysuckles and viburnums) and Horse Chestnut.

Nearby this kiosk, you can also find a green Ash and a silver Maple with opposite branching.

Red maple leaf, branch, and bark

A green ash leaf.



A silver maple leaf.

7. Staghorn sumac- can you find me?

Rhus typhina

My leaves are compound, very large, and made up of 13-31 toothed leaflets

A signature characteristic that I'm named after is my velvety texture and forking branches that resemble deer antlers, or horns.

Fun Fact: The red fruits are also characteristic of staghorn sumac and they are a reliable winter food source for birds and other wildlife.

8. Smooth sumac- can you find me?

Rhus glabra

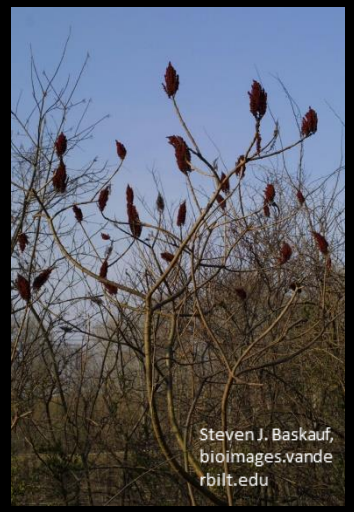
Compare me with staghorn sumac! We're very similar, but my twigs and leaf stalks are hairless.

I'm also not poisonous!

Fun Fact: Worried about finding poison sumac? Count the leaflets (but don't touch)!

Staghorn sumac and smooth sumac will typically have more than 13 leaflets with serrated edges

Poison sumac will have 7-13 leaflets per leaf, with smooth edges.



Smooth sumac twig (hairless)

Poison sumac leaves
(less than 13 leaflets with no serrations)

Staghorn sumac twig (hairy)

9. Shagbark hickory- can you find me?

Carya ovata

My most distinguishing characteristic is my shaggy bark, hence my name!

My branches alternate, and my leaves are compound with 5 leaflets, where the 3 leaflets near the end are larger than the two at the base.

Hint: Turn around and walk back towards the little bridge until you see it!

Fun Fact: My hickory nuts are food for many species of wildlife including bears, foxes, squirrels, raccoons, and mice. In warmer months, bats will even rest under the eaves of my shaggy bark!

10. White pine- can you find me?

Pinus strobus

Our first coniferous tree of the trail. I have needles instead of broadleaves

My needles are arranged in fascicles, or bundles with 5 needles in each. This is a useful clue to ID pines.

My trunk usually grows tall and strait, and my branching pattern is whorled- all of my branches emerge from the trunk at the same height.

Fun Fact: Counting the number of whorls a white pine has will give you a good estimate of the tree's age since they tend to grow a new whorl once a year!

White pine needles arranged in groups of 5

Red pine needles arranged in groups of 2

11. American elm- can you find me?

Ulmus americana

As you walk to the next kiosk, look for me along the trails edge.

My twigs and buds grow in a striking zig zap formation

My bark is dark brown with deep, crossing, diamond-like ridges.

Fun Fact: American elms are seriously impacted by Dutch Elm Disease, a fungus that is spread to elm trees by beetles. Elm trees can still be found in their native habits however, and healthy, non-stressed trees can fight the disease.

12. Early successional habitat

The Fort River Trail is made up of early successional forest as it continues to transition from farmland to forest. Pioneer species, like aspens, black locust, and pines, grow quickly and are short lived (50-80 years). Once the pioneers start to die, they open spaces in the canopy allowing allowing mid and late successional tree species to begin to dominate the forest. Small mammals, birds, insects, and amphibians thrive in early successional habitat.

What happens when a tree dies?

Trees that die often begin their decomposition process before they even fall over! Raccoons, opossums, owls and squirrels often nest in trees that have begun to rot inside. Birds like woodpeckers will also use dead trees to build a nest cavity, as the wood isn't as hard. Once trees fall and decompose, their nutrients are broken down by fungi, bacteria, and invertebrates, and recycled back into the soil.

Matt Tillet/Flickr Creative Commons

13. White oak- can you find me?

Quercus alba

My leaves are similar to other oaks, but my leave's long, rounded, finger-like lobes give me away. I do not have bristles. The base of my leaf is shaped like a wedge.

My bark looks whiteish to ashy-gray with a blocky or scaley pattern

Fun Fact: Acorns are a favorite source of food for deer, but mine are preferred since they tend to be sweeter than acorns of red oak species.