

Smelt Brook Preserve Scavenger Hunt



Answers & Additional Info

Stop 1: Holes & Swirls

The holes and swirls in this snag (dead tree) were created by a group of insects called bark beetles! These beetles live and breed within the bark of trees. Sometimes this can harm a tree and cause it to die. Other times, the beetles find a tree once it has already begun to die, doing little additional damage.

There are more than 6,000 species of bark beetles in the world, and they tend to create similar-looking patterns, so it's hard to know which kind lived in this tree. While the patterns can, unfortunately, represent tree damage, they can also be quite beautiful!

Stop 2: Larger Holes

These larger holes are too big to have come from a beetle...but another animal *is* responsible for these ones.

Did you notice any banging in the forest during your walk? At least four different species of woodpeckers live on these trails, including Pileated, Hairy, Red-Bellied, and Downy Woodpeckers. It's possible that one bird created these holes, or perhaps a mix might be responsible. The biggest of the species, the Pileated Woodpecker, is most likely responsible for the biggest of the holes.

Stop 3: Tree Rings

There appear to be about 40 rings in this log. That means the tree was about 40 years old when it died! The lighter portion of each band represents early spring growth, when the tree grows quickly. The darker part of each band represents late summer growth, when the tree starts to slow growth and prepare for winter. The width of a single ring represents how much the tree grew that year. A warmer, rainier year may cause a tree to grow more and develop a thicker band, whereas cooler or dryer years may result in thinner bands. You can learn a lot about the weather history of a forest by looking at tree rings!

Stop 4: V Trees

Sometimes a single tree has two large branches that reach upward to form a V shape. This is pretty common. But at Stop 4, two different trees appear to have grown onto -- and perhaps even *into* -- each other. This can happen through a pretty cool process called inosculation. Two trees rub against each other as they grow and, over time, the bark of both trees wears away and begins to merge into one. (This can only happen in trees of the same species.)

Keep an eye out for other examples of this on our preserves! You can find this low down near roots, as in this case, or higher up in the forest canopy.

Stop 5: Age a White Pine

This is a fun and easy way to figure out the age of a young pine tree when you can't see its rings! This trick works on other pine species as well, but is especially easy on white pines because their whorls (branch layers) are pretty distinct.

HOW TO ID A WHITE PINE: Hold one bundle of a pine tree's needles in your hand and count how many individual needles the bundle contains. If you count five, you've found a white pine!

An easy way to remember this is that 'white' contains 5 letters -- w-h-i-t-e. To make it even easier, red pines (also pretty common in Maine) have bundles of three needles: R-E-D!

Bonus: Signs of Animals

What other curiosities and signs of animals have you discovered on your walk?

The crunchy brown spheres you might find on the forest floor form when a female wasp lays an egg in a newly developing oak leaf. Rather than forming into a normal leaf, it grows rapidly into a sphere that encases the egg and offers the baby wasp a source of food before it develops into an adult.

Stashes of acorns also hold intriguing stories -- gray squirrels tend to stash acorns in multiple small piles throughout the forest, whereas red squirrels hoard one large pile in a single location. See if you can find both types on your next walk!