Winter Thoughts About Trees (published 2026-01-31)
By Patty Neas, Master Gardener

Winter for me is a quiet time, a time of contemplation and planning. While looking at the trees outside my windows, many thoughts and questions come to mind.

When did my love of trees begin? As a child, I remember finding orange and green tulip-shaped flowers on the ground under a single tree in the back field on our farm. I was fascinated and amazed at the flower that fell from that 30-foot-tall straight tree that had leaves only at the very top. This was the most unusual tree I had ever seen. Only later did I discover it was our state tree, the tulip poplar (*Liriodendron tulipifera*) and it belongs to the magnolia family (Magnoliaceae). This tree has "roots" back to the time of dinosaurs.

It is easy to take trees and their benefits to our landscape and our planet for granted. We cannot live without trees and the many ways they make our lives better. They also simply give us joy through their beauty and even those childhood memories.

My thoughts branched out to something new to me as I was walking through the trees in my yard. The maple tree's bark looked unusual, and pieces had fallen onto the mulch. What was wrong with my maple? Nothing. This is to be expected as part of the aging process of some trees. The tree is getting rid of unwanted pests, moss, and bacteria. As a tree's girth expands, the outer bark expands, cracks, and sheds to make room for new, larger layers that are growing underneath. I also noticed that initials carved in a tree stay at the same place no matter how tall the tree grows. The reason for that is trees grow taller only from their tips (apical meristems), which means any carvings or branches on the trunk will remain at the same height above the ground. The trunk only expands in girth through the cambium layer under the bark, adding new growth rings each year, but the existing wood does not move upward.

As icy winter weather is predicted, my thoughts turned to trees and how they protect themselves from freezing. It's like draining the pipes in homes. As hardwoods stop moving water from their roots to their leaves in the fall, they drop their leaves. They also move the water in all their cells to intercellular (non-living) areas. That restricts freezing to the non-living areas only. In addition, sugar content is increased which lowers the freezing point. Trees also produce proteins that function like antifreeze.

Talking about roots dating back in time, here are some record holders. In 1957 scientists found a bristlecone pine tree in the Inyo National Forest that they determined was 4,789 years old at that time. No wonder it's named Methuselah! General Sherman, the biggest single living tree in the world, is the name of a giant redwood sequoia that is 275 feet high and 25 feet in circumference, making it the world's tallest and biggest single living tree in the world. Hyperion, at 380 feet tall, is a coastal redwood that has been growing in the Redwood National Park for probably 700 to 800 years. The exact locations of these amazing trees are secret for their protection.

What initiated your love of trees? A childhood memory? What about trees do you want to explore? Whether it is the prehistoric beauty of the tulip poplar flower, or the more complicated scientific functions of trees, it comes down to this: trees are incredible. Plant more!

Resources

"Tulip Tree," https://www2.winona.edu/m/arboretum/about.asp?e=35&t=1

"Bark Shedding From Trees During Summer," https://www.canr.msu.edu/news/bark-shedding-from-trees-during-summer#:~:text=Seeing%20parts%20of%20trees%20curl,planetree%2C%20shagbark%20hickory%20and%20birch.

"Silent Survivors: The Winter Life of Trees," https://extension.psu.edu/silent-survivors-the-winter-life-of-trees

"Tree Growth Characteristics," https://plantsciences.tennessee.edu/wp-content/uploads/sites/25/2021/11/Tree-growth-characterisitics-UT-Publication-W227.pdf#:~:text=Primary%20growth%20occurs%20in%20small%20areas%20called,result%20of%20growth%20at%20the%20apical%20meristems

"Bristlecone Pine," https://www.nps.gov/brca/learn/nature/bristleconepine.htm

"The General Sherman Tree," https://www.nps.gov/seki/learn/nature/sherman.htm

"Tall Trees," https://education.nationalgeographic.org/resource/tall-trees/

How do I ask a question?

If you have questions for the Master Gardeners, submit them to us on our website at www.netmga.net. Click the link at the top of the page, "ASK A MASTER GARDENER" to send in your question. Questions that are not answered in this column will receive a response from a Master Gardener to the contact information you provide.

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