

The Outside Story

Red and Silver: A Tale of Two Maples

By Laurie D. Morrissey

In early spring, a reddish haze appears in the woodlands. With most deciduous trees still dormant, the red maples are living up to their name. Their awakening buds lend color to a gray landscape and signal that spring is coming. I love watching the steady progression of red as I look out my window. A few weeks after the buds redden, they will break into flower, offering bees and insects a critical early source of pollen and nectar.

Red maple (*Acer rubrum*) is one of the most common native trees in eastern North America. Often called swamp maple, it thrives in wet areas such as bog edges and wetland margins. For this reason, it's sometimes considered a "sister species" of silver maple (*Acer saccharinum*), a flood-tolerant species common along rivers. But several characteristics set these two apart.

The reason red maples are so widespread and abundant is that they are generalists. They can establish and grow in a wide range of habitats and site conditions, from urban settings to upland forests to swamps. They are medium-sized trees that are relatively fast-growing and typically reach 40-70 feet. They prefer moist, acidic soils, although they can do well in the compacted soil of urban parks and neighborhoods.

The buds, flowers, emerging leaves, and twig stems are red. Even the fruit, the two-winged samara nicknamed "spinners," are tinged with red. Though the leaves become green soon after emerging, it isn't long before the red returns: they are among the first trees to show autumn colors, turning red again as early as mid-August.

Red maple is increasing in abundance in the Northeast, and its ability to live in a variety of conditions makes it likely to be a "climate winner." These are resilient species that will continue to do well in the future. "It provides critical ecosystem services like pollinator benefits, wildlife habitat, and soil nutrients from leaf litter, as well as maple syrup and other traditional forest products – so it's a very important tree species for our northeastern forests and beyond," said Nicole S. Rogers, landowner outreach forester with the Maine Forest Service.



Because red maples can adapt to diverse growing conditions and climates, they are likely to become more valuable for syrup production. According to maple scientist Abby van den Berg, they may help ensure the resiliency of the industry. Though red maple sap has a lower sugar concentration than sugar maple sap, it produces copious amounts, and its flavor is nearly indistinguishable from that of sugar maple sap.

Silver maple also breaks bud early in spring. Stands of silver maple, which can survive weeks-long seasonal flooding, often dominate floodplain forests, with their arching branches forming a dense canopy above a ground cover of sensitive fern, ostrich fern, and other herbs growing in the rich, silty soil.

“Some of the most beautiful silver maple forests I’ve ever seen are in the St. John River Valley of northern Maine,” Rogers said. These forests harbor countless species, including rare and endangered reptiles such as wood, spotted, and Blanding’s turtles. The cerulean warbler, which has declined steeply over its entire range, is closely associated with these forests, and the soft wood of silver maples is ideal for cavity-nesting birds such as barred owls and common goldeneyes. Unfortunately, large intact floodplain forests have become uncommon. Only fragments of floodplain forests remain in areas where they were once extensive. Often these tracts of land are converted to agriculture or overrun by invasive species.

While red and silver maple have much in common, they are easily differentiated. Silver maple trunks often divide into separate stems close to the ground. The leaves of both species are silvery underneath, but they differ in size and shape. Red maple leaves typically are about 4 inches in diameter and three-lobed, while silver maple leaves are about 6 inches in diameter and have five deeply cut lobes. Of all our native maples, red has the smallest samara (less than an inch long), and silver has the largest (2 inches long). In fall, silver maple leaves usually turn yellow.

As I watch the red maples redden, what I appreciate most about this harbinger of spring is their hue. But then, I’m not a bee!

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