

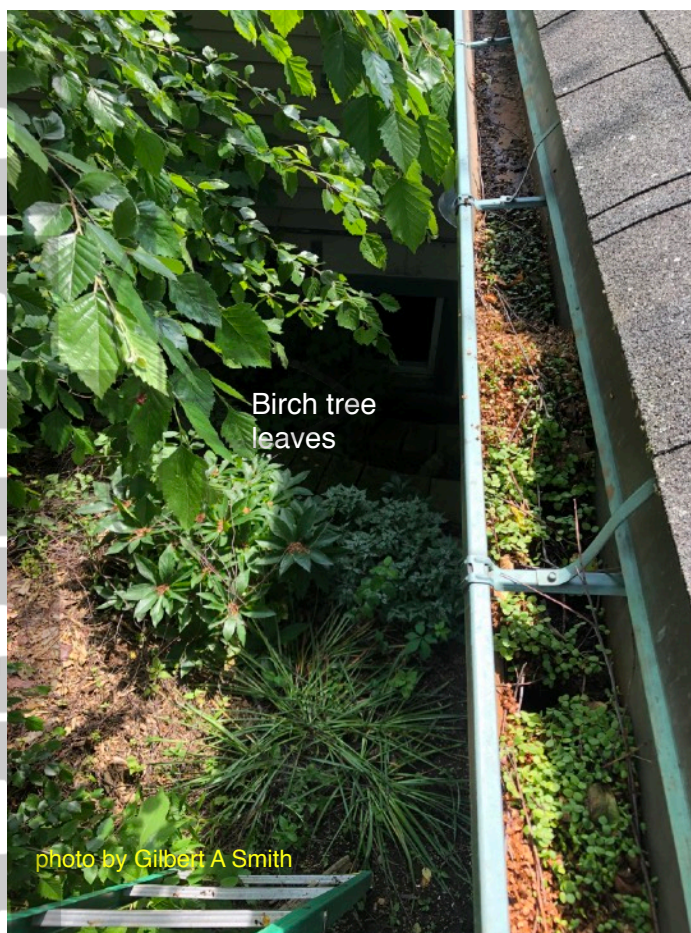
Backyard Wisdom July/August 2019

Tree Gutter Garden

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Every spring/summer I have to clean out my gutters after my River Birch drops its seeds and twigs. The funny thing is that you can see all of the germinated seeds, thousands of them but only in the gutter. Search the ground throughout my yard and you won't find any young Birch seedlings. So what are these smart seeds teaching us? That I should get gutter guards and stop risking my life walking on the roof, that's what Lesley says. I'm not talking about that lesson, I'm wondering why the gutter is the only place the River Birch germinates? Here's a hint... If you place a flower pot beneath the Birch with potting soil that contains lots of peat moss the seeds will germinate there as well. Another hint, if you drive down to Southern Illinois south of where the glaciers walked, you will find River Birch seedlings all over the place, that is, if you're near a river. That's where they get their name, because they need to grow near water. But my back yard has plenty of water, too much in fact. Why don't those seedlings germinate?

When you're down in Southern Illinois you will also notice that the soil color changes from beautiful black to washed out grey or even red. That is the soil color throughout the South, North, East and West of this country and most of the world, but not in the prairie states. Here, the soil is made up of ground up limestone, thanks to the glaciers, which created thick, poorly drained, clay subsoil. This subsoil doesn't allow water to wash through it like it does in most of the world, which keeps the water from washing away all of the nutrients. Before it was drained for farming, Illinois soil contained the accumulated, rich, black organic matter of 12,000 years of prairie growth. Also, the clay is made up of pulverized limestone which makes it highly alkaline, not acidic, like our River Birch prefers. River Birch, on the one hand, need to be near water, and on the other hand it prefers to live in well drained soil. It seems contradictory but roots need oxygen as well as water to survive. The soil particles found in Southern Illinois are anywhere from 100 to 10,000 *times larger* than our clay soil particles. That means they



Tiny Birch seedlings growing in the gutter but not in the soil below.

have more space between particles which allows greater room for air and for the water to drain away, so roots don't drown.

So, even though my River Birch produces 100,000 seeds, they only germinate in acid, well drained soils like we find in my gutter. Smart little seeds are telling me that though my Birch is surviving it will always be at a disadvantage, not able to withstand attacks from severe weather, insects, diseases, or nutrient deficiencies. As it is, I have to annually acidify the soil and occasionally inject iron into the trunk. Maybe I should just plant native Illinois species. However, that would severely limit the number of species that I could use, because before European settlement there were no native evergreens in Northern Illinois. If you don't believe me go out and count how many seedlings you find beneath your Pine, Spruce, Fir, Yew, or Rhododendron. It's a rare find, indicating unusual soil. But I love my River Birch and acidifying and giving it iron is the least I can do to repay it for the grace and beauty that it adds to my landscape.

