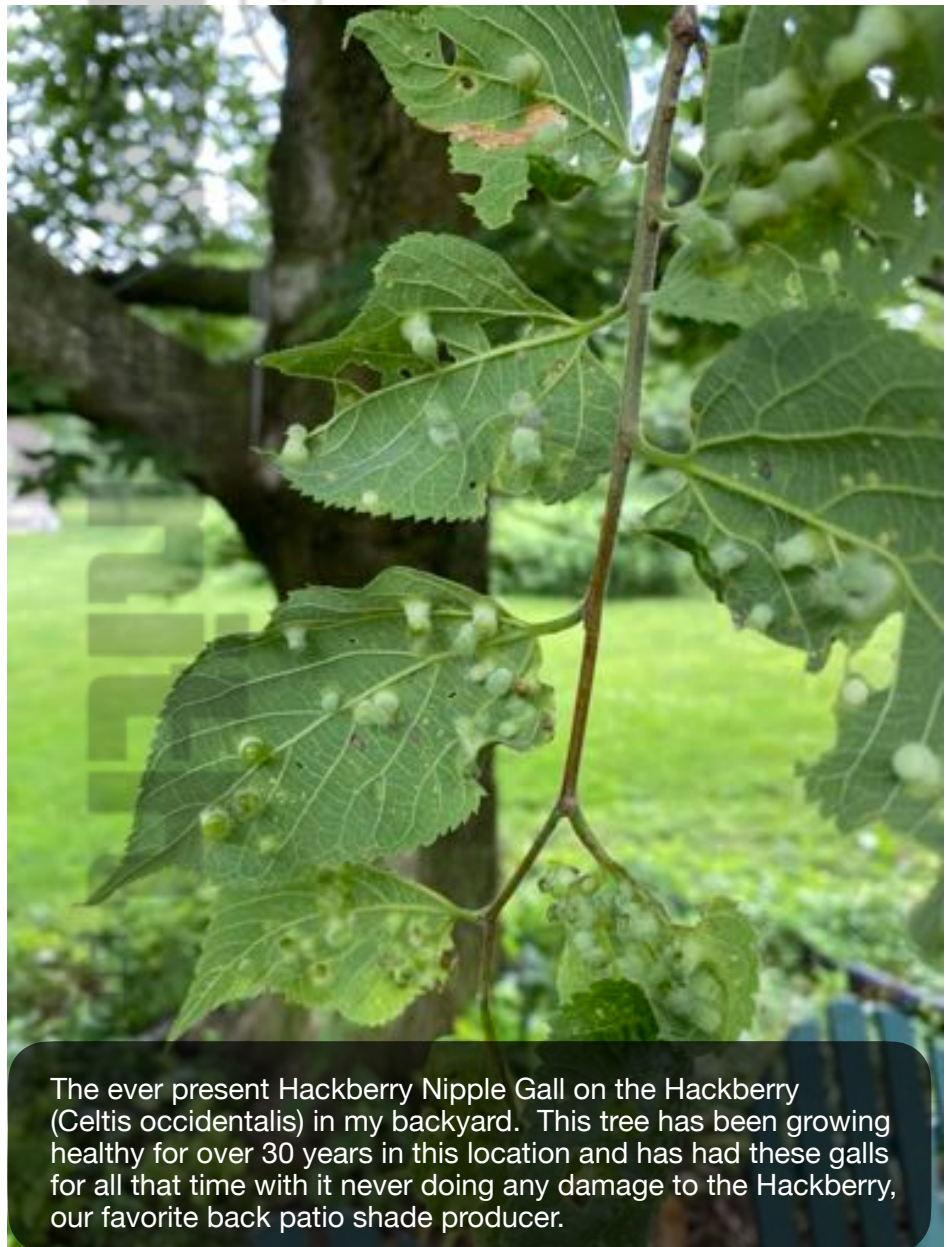


Mother Nature's Moment - July 2021
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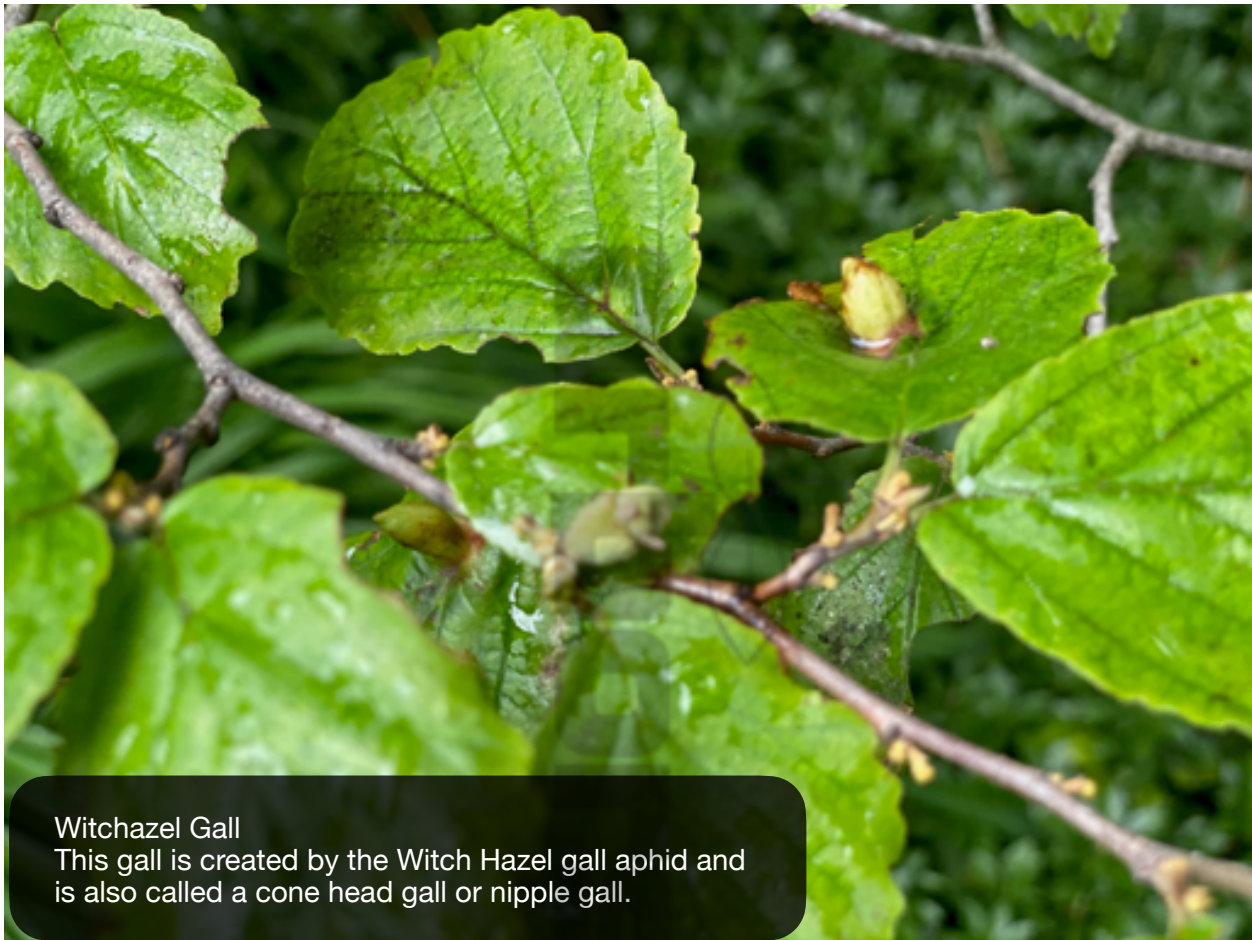
My Leaves Have These Weird Bumps and Lumps on Them!

It has been a “good” year for funky leaf galls, or a bad year, I guess, depending on how you look at it. Galls are “abnormal vegetable growths caused by various agents, such as, insects, nematodes, fungi, bacteria, viruses, chemicals and or mechanical injury”. When our clients ask about these funny bumps on their tree leaves, I usually stop at the short explanation that they are **completely harmless** to the tree and normally caused by beneficial insects that lay their eggs in the leaf tissue which causes the strange growth they are seeing.

I refrain from launching into an explanation that is longer, really interesting if you are a tree geek, but often can gross-out the average resident of the NorthShore. However, I am going to do a little explaining because it IS interesting and helps to explain the amazing interplay and symbiosis of both the insect and plant world. If you have ever walked through the Botanic Garden and enjoyed the myriad of beautiful flowering plants there, received a bouquet of flowers, or enjoyed eating a meal. You have experienced that amazing interplay. Probably without knowing or thinking about it, you have entered into the benefits we enjoy when plants and insects interact. Most of us would quickly assent to our appreciation of, and for, the amazing plant kingdom. But probably just as many of us would respond with “eew, that’s disgusting” if I launched into an explanation of the life cycle and parasitizing habits of



The ever present Hackberry Nipple Gall on the Hackberry (*Celtis occidentalis*) in my backyard. This tree has been growing healthy for over 30 years in this location and has had these galls for all that time with it never doing any damage to the Hackberry, our favorite back patio shade producer.



Witchazel Gall

This gall is created by the Witch Hazel gall aphid and is also called a cone head gall or nipple gall.

particular beneficial insects. So many insects which we NEVER see or interact with provide vital roles in our landscapes that protect the plants we care about as they kill the bad bugs that can do a lot of damage. Just an FYI, when we choose to use insecticides we often kill the good bugs that control the bad bugs and end up creating a bigger problem than if we had left well enough alone.

Take Hackberry Nipple Gall for instance. Hackberry (*Celtis occidentalis*) is host to a number of gall forming insects. Leaf nipple galls on Hackberry are so ubiquitous that I would be surprised if I saw a Hackberry this time of year without them. By the time we notice the galls, the insect is either hidden inside the gall and fairly impervious to any insecticide that might be used to kill them or they are long gone. But I would never recommend spraying/treating a Hackberry to get rid of these galls because they are totally harmless to the tree. The beauty of nature is that trees are famous for over producing food, in other words, they use all the sun's abundant energy this time of year to photosynthesize LOTS of healthy green sugars which get stored in their leaves and then later in their stems and trunks. This overproduction of food allows them the generosity to share with their insect friends, as well as their tree neighbors. Healthy trees can actually withstand as much as a 40% loss of foliar area without skipping a beat. They know that nature can often throw them a curve ball in the form of drought, disease attack or insect infestation so they build up reserves in their "energy bank savings account" for the hard days ahead. Once again they are sharing their "wisdom" with us.

Jumping Oak galls are created by the cynipid gall wasp, and are found almost exclusively on White Oak (*Quercus alba*). I have been under White Oaks when these galls are drying and popping off making it sound like it is "raining".



Red and Black Oak are the preferred hosts for this large spongy Oak Apple gall

As Gilbert points out in his Backyard Wisdom article this month, those same insects we often get "grossed out" by provide vital food and protein to the dozens of bird species that depend on them. Galls can take so many different forms. I am including photos of just a few different types to illustrate all the unusual forms of harmless galls. they can look alarming but they are just one of nature's many creative forms of symbiosis.



These large pinkish protrusions are Elm Leaf Cockscomb Gall and are shown here on the leaves of an American Elm (*Ulmus americana*). There are also tiny finger galls on the leaf in the far left showing that galls are very proliferous and not harmful, as generally the worst thing that