



## Backyard Wisdom • May | June 2017

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### Witches Broom

It sounds medieval, or at least Harry Potteresque, I know, but take a look at the picture and you will agree, witches brooming is rightly named. Now, as you drive the expressways in the large northern cities you will begin to have the affliction that Lesley and I refer to as “the arborist’s eye”. Be careful! Don’t take your eyes off the road, but you can begin to notice **Witches Broom** everywhere near heavy automobile traffic, especially in the winter when the leaves are not covering up the ends of branches.

**Witches Broom**, in this case, is caused by pollution from road salts, the sulfuric acid from exhaust emissions and nitric acid. The airborne salt and acids burn and dry out trees that grow along the busy traffic filled streets. The most sensitive parts of the trees are the tender buds that are dormant, but that are ready to explode in the spring. When these tender buds are killed, the trees respond by creating new leaf and flower buds so the tree doesn’t die from lack of food. The resulting flush of growth makes the trees look like they have been sheered over and over again forming this explosion of abnormal misdirected growth.



Severe Witches Broom; photo by Lesley Bruce Smith

Now let’s take a moment to examine what I just said.

- 1) The buds are already on the trees in the fall. **That** is because it takes a ton of sun energy to form buds. That kind of energy is only available in the summer when the leaves are present and the sun is high. Those buds have been on the trees for as long as 8 months waiting, fully formed to unfurl and harness the next season’s worth of the sun’s energy.
- 2) **Trees get their food from the sun** so when the buds are killed, those trees are in a **starvation situation**. They must use their **reserve** energy to manufacture and launch new leaves to capture their *sun food*. **Now** your arborist eyes see the life and death drama going on every spring along our highways.

Doesn’t it make you wonder about the air we breathe? Maybe it should not surprise us that in the days of leaded gas, back before our tolls were collected by *EasyPass*, the human toll collectors suffered from a high rate of depression due to the lead they inhaled and they had an extremely high suicide rate.