

## ***What IS that tree anyway?***

### ***Encountering the Amur Cork Tree (also known as Japanese Cork Tree)***

*~ by Judy Zimmerman, February 2019*

In 1992, when my family and I moved to the south side of Menomonie, we acquired a house surrounded by an acre and a half of mostly-wooded land. Along with this new homestead-property came a certain unspoken 'duty' that would come into clearer focus over time.

The most predominant trees were the large oaks, some with three-foot diameter trunks. Then there was scrub-brush throughout the woods, which we couldn't easily identify. While we didn't take time to survey the woods back then, there was one tree by the house that got our attention. It had a very rough bark that was soft and felt 'corky' when you dug your fingernail into it. In the fall, we noticed how this tree had loads of black berries that the birds descended upon. When these berries dropped onto the driveway and we crushed them with our shoes, they had an acrid smell, like turpentine. We also noticed that the tree produced flowers in the spring, and that these flowers had this same acrid smell when crushed underfoot. The leaves on this tree dropped much earlier than the surrounding trees, exposing the berries, which remained well after the leaves were gone.

Curiosity about this tree caused the biologist in the family to research it. One of the Field Guides to Trees described a tree with the characteristics we'd noticed. The Field Guide's name was Japanese cork tree. Since that was the name we discovered back, we continued to call it that. Now, the LCIP project uses "Amur Cork Tree" (ACT for short) which is probably more accurate, because the tree grows in the Amur River Valley of Asia, between China and Siberia. Next we invited an arborist from the City to take a look at it. He came over one day and when he saw the tree, he scratched his head and said he had no idea what it was. When we told him what we thought it was, he then did his own research, called us back and verified our own research. This was in 1993 or so. There was no follow-up or particular interest after his visit. Over time, we decided that the tree was likely an aggressive intruder, because it grew so fast, and would likely displace the oaks if allowed free reign. So, now we had to decide: do we just let Nature take its course and watch the landscape change? Or do we intervene? Due to the number of large oaks in our yard and in the neighbor's yard, we believed we were surrounded by what was formerly an Oak Savannah that was quickly losing its character as these non-natives took over.

One of the bigger cork trees was growing right next to one of the old oak trees, as if challenging its rank. In fact, this cork tree had grown so fast and tall that it was now shading out the oak tree that had likely taken a hundred years to reach its own stature. The cork tree had grown up right through the oak tree's canopy and was now starving out the sunlight. Some of the oak trees were also covered with Virginia creeper, a vine that creeps up the tree and can also starve out the sunlight and kill the tree. At some point we decided to protect these majestic oaks. We had work to do!

As soon as we figured out which were the female trees (since they were the ones that produced the berries), we cut them down. We had to girdle some of the bigger trees because they were too hard for us to cut down safely. As they died, the bark would fall off, and after several years they would fall over. While not the best way to deal with these trees, we were trying to "do it ourselves" as safely as possible. We left the male trees at that time. We also worked on removing any smaller trees which hadn't matured yet, even using a "tree-puller" mechanism to yank them out of the ground. Over time, we learned this was not the best way to get rid of them, since it disturbed the

surrounding ground so much that newly-dropped berries could take a better foot-hold. We learned a lot as we worked on protecting the Oaks.

From what we could tell, the cork trees did not have any natural predators – there were no insect holes in the leaves and we never saw any deer eating the leaves.

In addition, there were also a lot of buckthorn trees growing in the woods and, combined with the cork trees, these two species seemed to be collaborating to take over the landscape.

Later as I began thinking more deeply about this issue, I questioned whether the acorn production might have been affected. We learned that cork trees release a chemical into the soil that inhibits other plant growth. I recently discovered on the DNR website where acorn-production can indeed be affected. I'd noticed that there weren't very many acorns on the ground around these old oak trees. So, the cork tree can affect the wildlife population in an area, as well as the plant population.

We began to be curious about how these unusual trees ended up here in the Menomonie area, since they are native to Asia. Then, a visitor showed up who may have answered that question. One summer, a woman came to our place and told us she had grown up in the house. She shared some of the family history including that her father, who had been the local Postmaster, liked to travel to exotic places, and that he also liked to grow exotic plants on his hobby farm which was down the road from us in the Oak Park Circle subdivision. During his travels by steamship, he may have brought back these plants. We learned that there were (and still are!) a number of very large cork trees growing in that subdivision right in the area where the house was. So, it actually made sense that he might have introduced the trees, since the "hot spot" for cork-tree-density is the south end of the city.

Several years later, I learned that the Menomonie Urban Forestry Board was having a meeting, so I invited myself and took a small cork tree log to the meeting. I placed it on the table in front of them and said, "Do you know what this is?" They were baffled. I told them what it was and that there were a lot of these trees growing in the south end of the city. They were quite interested, but again there was no follow-up.

Some twenty years or so went by, when a couple of women stopped by the house one day (Kathy & Mame). Their mission was to educate about the Cork Tree and that it was now labeled an "Invasive Species" and a "Prohibited" plant. They warned me that we were now tasked to remove them. My first reaction was: We've been doing just that – what took the rest of you so long?!? I also felt a tinge of the government-incursion since their approach kind of sounded like a government mandate. The good news they brought was that the DNR would provide funds to assist with tree-cutting and removal.

While we had done a pretty good job of suppressing the spread of the tree on our property by taking out the females, there were still a lot of males (which apparently can sometimes morph into females!) and also a lot of young saplings that had been constantly growing from the berries of our neighbors' trees.

The tree-removal began in March of 2017, when two men with chainsaws and cables began the job of removing the two-dozen large trees on this property as well as two dozen trees in the adjacent neighbor's woods. As these lumberjacks felled the trees, I was outside burning the huge piles of branches that they drug out of the woods.

As I burned the wood, I discovered an interesting phenomenon: that there was very little ash left after a day of burning. The corkwood branches burned hot and fast, once the fire got going, but at

the end of each day, there was not much ash in the fire-pit – just dust. In fact, I didn't have to empty the fire-pit for many weeks. My assessment is that these particular trees are made up of mostly air and water – not much carbon like oak or maple hardwoods. The cork tree bark burns almost explosively, since it's so full of chemicals. The lack of ash was an esoteric lesson for me: that the 'substance' in our surrounding-world is not always what it appears (feels) to be!

The bigger logs that were dragged out of the woods were claimed by Bob Cropp who is now using them to make furniture. I've learned that the conference table at the new LCIP office may be milled from one of the trees taken down from this property.

I will need to continue monitoring the area for cork-tree saplings, since there are still lots of mature cork trees in the neighborhood that produce berries that are spread by the birds (birds get diarrhea from them, so the berries are usually dropped near the source-tree). In fact, last summer, I found an area of saplings coming up on a bare spot in the front lawn where I'd cleared out some buckthorn trees. The cork tree berries are able to best-establish on bare ground. And that is one of the reasons why this is considered a "community" project, using an organizational model called "Civic Governance" with a goal of engaging neighbors in a common goal. We can remove our own problem-trees, but if the neighbors don't, the trees will just come back.

Apparently, at some point in time, a decision was made to protect our native species, after years of introducing all kinds of alien species that compete with the natives. At one time, the cork tree was considered a "nice shade tree" and it was fast growing—a quality that landscapers often promote to developers after they've bulldozed landscapes for developments. The sociologist in me observes how the "winds of change" can blow hot and cold: what is considered "desirable" at one time, may later be seen as "undesirable," a "nuisance," competing with our vision of "the familiar."

If you read about the cork tree, you will find that it is a valued tree in China and Japan, due to its curative (medicinal) properties as well as for its lumber. Because we subscribe to a different medical model ("Western Medicine"), any curative properties of the Cork Tree have been ignored and disregarded. I suggest there might be a lot to reflect on here. It would make a great discussion-topic. LCIP has the back-story on how plants are identified as "invasives" or "prohibited." It's given me a lot to think about while working out in the woods.

The next chapter in the saga is restoration of the area ravaged by the tree-removal. I hope to be able to introduce compatible (native) shrubs and trees to the area. I'm not yet familiar with all of the options, but I intend to learn.