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Tilia cordata (Littleleaf Linden) #1059

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Heather McKee

April 16th, 2021

BIO140L: Humans and Their Environment

Salve Regina University



Littleleaf Linden

Tilia cordata

ID #1059

From February through April I participated in close observations of a specific tree on campus during my BIO140 Lab. The tree that I studied is number 1059, it is located between Gerety Hall and McKillip Library, situated at the left, back corner of Gerety Hall from the front of the building. I made weekly photographic and written observations of my tree throughout this semester. Initially, I was drawn to my tree because the name sounded interesting and I had never heard of it before. Surprisingly, despite the name, my tree is far from little. The height of tree 1059 is 21.33 meters and the radius of the crown is 27.43 meters. Additionally, the DBH of this tree is 79.6 centimeters. Over the course of three months, I observed my tree in different seasons and gained greater knowledge about the species.



Figure 1. Photo of my tree from February 1, 2021.

My tree is a *Tilia Cordata*, also known as the Littleleaf Linden. This tree is native to most of Europe and is not native to North America. It can be found throughout mainland Europe, ranging from Britain to the Caucasus and Western Asia (Bulger et al 2014). Its native biological community consists of ferns, plantain lilies, lungwort, and wood poppy (davesgarden.com). Additionally, the Littleleaf Linden grows during early summer, mid-summer, and mid-fall (The Morton Arboretum), flowering in late June or July (Bulger et al 2014). As seen above in Figure 1, my tree does not have any buds or flowers because it was late winter when the photo was taken.



Figure 2. Image of Littleleaf Linden flowers from facilities.utah.edu

There are many human uses for this tree, such as brewing tea utilizing the flowers seen in Figure 2. Tea is made from the Littleleaf Linden's flowers throughout Europe, but especially in France. As well as this, the flowers, seen in Figure 2, have been used in herbal remedies. Even more so, the wood of the linden tree is fairly soft and malleable, so as a result, it is a popular medium for carving. It has been used in carvings for buildings in Europe such as the St. Paul's Cathedral, Windsor Castle, and Chatsworth (Bulger et al 2014). The wood of tree 1059 is easy to

cut into and carve, proof of this can be seen below in Figure 3. While making observations of my tree in early March on a rainy day, I noticed a long, vertical scar carved into the bark of my tree. I was concerned by what could have caused such a significant scar, I hypothesized that due to the size of the scar, roughly five feet, it was man-made. Although, I do not believe that this scar has had a serious impact on the health of my tree.



Figure 3. An up-close picture of the bark of my tree. There is a long vertical scar on the base of the trunk which can be seen in the image. Image taken on March 1, 2021.

Furthermore, the Littleleaf Linden is the national tree of the Czech Republic and Slovak Republic (Bulger et al 3). As aforementioned, the wood of this tree has been a useful resource in the construction of important buildings throughout Europe. Historically, this tree played a role in cultural and spiritual life since it provided a vital organic material and medicinal treatment to traditional craftsmen and early peoples (Ţenche-Constantinescu et al 237). The Linden tree has been a major cultural symbol in Europe throughout history, it symbolizes love, prosperity, peace, and many other spiritual attributes (Ţenche-Constantinescu et al 237). Overall, the littleleaf

linden holds a key symbolic role at local and national levels due to the variety of human-uses it provides.

Since this species is widely popular in spiritual and cultural symbols in Europe there are many poems and literature regarding it. For example, the poem "The Linden Tree" by Deborah Sweetsilverbird Birch reviews the popularity of the Linden tree in historic Europe and how it facilitated relationships between groups of people because of its symbolism. Alongside this, the author also addresses the medicinal value of the Linden trees' flowers in teas and herbal treatments. This poem regards the Linden tree as a symbol of goodness and friendship among all and within oneself. Alongside poetry, the Linden tree has been incorporated into children's literature, such as "Littleleaf Linden" by Kathryn Lynn Seifert. Seifert personifies the Linden tree to aid in educating elementary-aged students about what happens to the tree during each season.

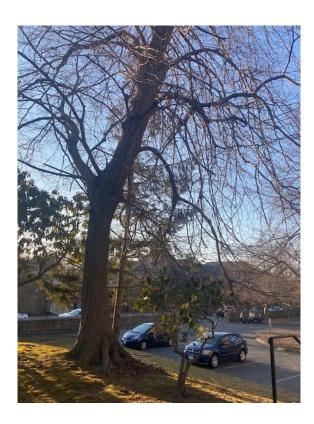


Figure 4. Image of my tree taken on March 9th, 2021.

This tree is important to Newport and many other urban areas throughout the United States and Europe because it is pleasing aesthetically along streets and tolerates urban conditions well (Bulger et al 2014). When in bloom, this tree produces magnificent white and yellow flowers, as seen in Figure 2 above, that have the ability to make any urban street appear attractive and lively to the eye. Salve Regina placed this tree in an ideal spot on the corner of Gerety Hall near the back parking lot, as seen in Figure 4 above, so that all passers-by can witness the unique flowers of the Linden tree during the summer. Even more so, this tree is important to the Sisters of Mercy because it symbolizes peace and friendship which are a key part of the critical concerns. For example, one of the critical concerns is that of nonviolence, similarly, the Linden tree symbolizes peace within a community. Both the critical concerns of the Sisters of Mercy and the symbolic attributes of the Linden tree promote harmony within and between communities throughout the world.



Figure 5. (Left) Image of my tree from February 1st, 2021.

Figure 6. (Right) Image of my tree from April 12th, 2021.

Over the course of roughly three months, I observed the Littleleaf Linden as the seasons transitioned from winter to spring. In Figures 5 and 6 one can see the transformation that occurred during the three months of observation. I did not observe any drastic changes within my tree until April 10th when I noticed miniature, red buds appearing on the branches. These buds are the tell-tale sign that winter has ended and spring is beginning! While conducting research, I gained greater knowledge about the historical importance and symbolic value of the Linden tree in Europe. I was intrigued to learn about the variety of uses for the tree's wood and flowers. Also, I did not know that this tree produced such beautiful flowers. I plan to continue to observe my tree in passing, in hopes of capturing when it flowers early this summer. In sum, this semester-long arboretum project that I participated in for BIO140 Lab has educated me about the Linden tree species. I hope that future students gain a greater understanding of their trees while conducting future research.

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