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Fagus sylvatica (European beech), ID: 1134

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Olivia Thayer

May 4, 2018

Bio 140: Humans and Their Environment

Salve Regina University



European Beech

Fagus sylvatica

ID #1134

Over the course of the spring semester of our Bio 140 lab, my classmates and I have spent time observing a tree of our choice which is located on campus. The tree that I chose to observe is a European Beech, and the scientific name is *Fagus Sylvatica*. The id number is 1134 and it is located on the path through campus, close to the Labyrinth. Each week, I would visit my tree to take pictures and record any changes that I noticed. Since most of the research done on our trees were during the winter months, it was difficult to record lots of changes due to the weather and late blooming times. Before starting this semester long project, I was not knowledgeable about the trees located on our campus so lots of research was necessary to learn about my tree.

Figure 1: A photo of my tree in mid-January, 2018



After spending lots of time looking at the Tree Inventory and Management Plan, I was able to learn more information about my tree. My tree is a *Fagus Sylvatica*, the European Beech

or common beech, and belongs to the beech family, Fagaceae. It's a large deciduous tree that's capable to reaching up to 50 m tall and 3 m wide. It is native to woodlands in central and southern Europe. In the mid-1700's European colonists brought this tree to America and it has been popular ever since (Missouri Botanical Garden, 2016). The lifespan is about 150-200 years, but some can live for up to 300 years. However, the way the tree grows depends on the location. A European Beech in forest areas can grow over 30 m, with branches high up on the trunk. In open locations, the tree will grow much shorter, typically 15-24 m. The leaves of beech are simple, 5-10 cm long, and 3-7 cm wide, with about 6 or 7 veins on each side of the leaf. The bark on these types of trees are thin, smooth, and gray. During the summer, the leaves are luscious and dark green. In the fall, foliage turns golden brown, and during April-May the buds form yellowish green flowers. The tree is best grown in rich and moist soils in full sun to part shade. The European Beech has been described by experts as the finest specimen tree available, which is most likely why there are several on campus.

Figure 2: Photo of my tree on March 8th

Figure 3: Photo of my tree on March 19th



Over the course of January, March, and the beginning of April I noticed very slight changes in my tree. During these months the tree isn't blooming, so the only changes I noticed were branches that had fallen off the tree, which could be from human or animal activity. As shown in figures 2 and 3, the branches are bare and lacking any buds or leaves. The tree branches remained bare throughout January, March, and almost all of April.



Figure 4: Photo of tree on April 23rd



Figure 5: Photo of tree on April 29th

On April 23rd the buds on the tree have started to form. As shown in figure 4, the buds have started to form in a long and thin shape. The buds appear to be a brownish red color. I noticed that around this time most of the other trees on campus had already started budding, but my tree had not. This is because the blooming time can range anywhere from early April to mid-May. Since the buds have formed, I have noticed how quickly they are growing and changing color. By April 30th, the buds had already doubled in size and changed to a green color, which is shown in figure 5.

In the next few weeks the tree should be fully bloomed, with dark green leaves and a dense canopy branching close to the ground. European Beech does not do well in extreme heat and sunlight, which could affect the way it grows during the summer months. The large canopy might also have an effect on the surrounding plant life, due to how close trees and shrubbery are located. Although I won't be here during the summer to see the changes in the tree, I am hoping that before I leave I am able to admire the beauty it portrays once it's fully bloomed.

While completing this semester long project I learned a great deal about the European Beech, and the other trees on campus. I was able to observe the changes of my tree over the course of a few months. Before completing research I knew nothing about the European Beech, but now I admire it greatly and hope to have one on my potential land in the future. I was not aware of the Arboretum on campus, and believe that their mission is very important, *"We value this land surrounding our campus, and we feel a strong sense of responsibility to preserve it for future generations of students, members of the community and visitors to Newport."* – *Chancellor M. Therese Antone, RSM (The Arboretum at Salve Regina University"*. This project has allowed me to respect the wildlife surrounding our campus, and tell others that the trees on our campus are crucial.

Works Cited:

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