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Fagus sylvatica (European Beech), ID #712

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December 8, 2020

BIO-140 Lab

Salve Regina University



ID #712

Fagus Sylvatica

European Beech

Over the course of this semester, our BIO-140 Lab had each student choose a tree from the school's arboretum and kept close track of it as well as noting differences and changes the tree experienced throughout the several months. My tree was a European Beech tree labeled #712 and is located on the side of Wallace dormitory. I was able to look at it each day on my bike ride down to my classes. This tree is very interesting. It has a very unique structure and a beautiful big canopy although having some health issues. Over this semester I've seen it transform throughout the fall/winter season.



Figure I: First Picture of the Tree (October, 5, 2020).

This tree is called *Fagus sylvatica*, but better known by its common name of the European Beech. This tree is not native to the United States, but Europe. The European Beech is a deciduous tree characterized by its smooth bark, round figure, colorful foliage, and stands at

around 40-60ft tall. They prefer full sun environments, moderate weather, and moist well-drained soil, but tolerant of high PH soils (The Morton Arboretum).

#712 European Beech stands over 40 feet tall, has a canopy with a radius of 30 feet, is in a mature age class, has a DBH of 49, and is listed as being in good condition (Salve Regina University Tree Inventory & Management Plan, 2012). Although this tree has been listed as in good condition it does have some health effects. The tree has been diagnosed with cankers. Cankers are dead portions of bark either located on the branches or the trunk of the tree. There are several ways trees can get cankers either from improperly cutting branches, damaging or hitting the tree with something, or from different fungus' or bacterias. I'm unsure the reason for this European Beech tree's cankers but possibly either for incorrectly cutting some branches, which then were infected by bacteria and fungus, or experiencing "target shaped cankers" which is common in the northeast on deciduous trees. Fortunately, the tree is still in a good condition, but this can cause the tree to die (Cornell University College of Agriculture and Life Sciences).



Figure II- Cankers

There are some tears in the bark that are seen in this picture and those are the cankers.



Figure III- Second Picture (October, 28, 2020)

At this point, the tree hasn't changed much over the 23 days. The differences that are seen are in the canopy. The tree is at the point where its leaves are starting to change colors and beginning to fall off the tree. European Beech trees are known for their bright red and purple toned leaves. Therefore, they are a superior species additionally loved for their long life span and weeping branches. The canopy of the tree has fewer leaves and is preparing for its dormant stages in the wintertime, which will last a few months.

This tree is also very vital to many animal species. They provide food for many species such as “deer, squirrels, chipmunks, mice, raccoons, grouse, turkeys, grackles, crows, jays, wood duck, and even fox and coyote” (Looking at Beech Trees, 2019).

The Beech Tree

This beauty that stands before me
Unchallenged by the light of day
Or the four winds that surround her
For she has stood her own for so long
Offered her strength and shelter
For so long,
Become part, yet set within the
Ever changing fields of time
This beauty that stands before me
She has grown through the ages
Held secrets never to be told and
Yet her wisdom seems to seep through
Every heartfelt hue,
Roots set deep and spreading
Branches that stretch out like hands
A comforting sight for onlookers
Who smile as they
Understand
(Duncan Wyllie)





Figure IV- Third Picture of Tree (November 20, 2020)

On November 20th, the European Beech tree has shed most of its leaves, it has continued to prepare for winter. The tree will most likely lose all of its leaves in the next two weeks or so.

European Beech Trees are a symbol of wealth and have been purchased in history to lined important or expensive houses. These trees cost around \$20-100 for an immature European Beech and up to 5,000-15,000 for a mature tree.

Over the semester I haven't noticed any major changes in the European Beech tree. In mid-October when we began keeping track of our species, the leaves of this tree just began to change. The leaves remained colorful and intact for about 3 weeks. In mid-November the leaves were mostly off and appearing much more dormant. Other than its leaves I've noticed that this tree has had many limbs removed, has cankers, and a large expensive limb system above ground.

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