[name omitted for sample]

Dr. Sabin

Biology

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The purpose of my study is to investigate a question related to the ecology of Haines City High School. Through this project I hope to learn about different topics of ecology on the Haines City High School (HCHS) campus. Advanced research on our campus may influence other schools within Polk County to study the ecology factors within their campus. Also, by our school enhancing our campus and trying to deepen our knowledge, we may increase our social value within the Polk County schools.

The scientific question I want to propose to future examine is: How many non-native/non-“Florida Friendly” plants inhabit the HCHS campus? Important background information one may need to know may consist of: native plants can withstand harsh weather conditions, supply an abundance of nectar, they are less of a hassle to care for, less expensive and they provide a healthier environment. Non-native plants however, are harmful for the environment and usually wipe out many native plant species (Chicago Wilderness). Forest preserves and other natural resource agencies try to restore and preserve native habitats. Agencies such as these use techniques like brush cutting or controlled burnings to kill off and eliminate the non-native species. These organizations also ask people, such as ourselves, to create native backyard habitats and to spread the news on how others can help (Kelly).

Many websites, such as Florida-Friendly Plant Database want to help people find friendly landscaping but, this doesn’t always mean the landscaping is native. By referring to a native species it is meant a plant species that has been in an area for thousands of years (The Meaning

of “Native”). Many of the times these “Florida Friendly” plants can just withstand the climate or adapt to a variety of soils. Some of these websites are here to help keep native plants in and non-native plants out of Florida. Non- native plants are also called “weeds in natural areas” (Ramey). These plants have two characteristics that are shared by both native and non-native plant species. The first being non-native plants are introduced to an unoriginal environment accidentally or intentionally by humans. The second characteristic is invasive plants or plants that grow other plants. Florida is home to 4,000 species of plant life (Invasive Non-Native Plants). Native plants have evolved within their own ecological niches and do not usually take over their habitats; this allows biodiversity. Scientists state that once non-native plants are introduced to an environment it is difficult to get them out (Florida-Friendly Plant Database).

I hypothesize that if I look to see how the percentage of non-native/non-“Florida Friendly” plants compares to the percentage of native/ “Florida Friendly” plants are on campus that the non-native/non-“Florida Friendly” plants will play a negative role on the growth process of other species on the HCHS campus. Research shows that the more densely an area is populated with non-native/non-“Florida Friendly” plants then the more likely these plants will be dominating causing biodiversity to be lower because of the limited space for other species to grow and develop (Invasive Non-Native Plants).

The materials needed to conduct this investigation are as follows: paper and a pencil to record the characteristics of plant life around the HCHS campus and the internet to compare the characteristics of the plants found on the HCHS campus to those that are native/ “Florida Friendly”.

I plan on collecting the data through (as already stated above) writing down the characteristics of plants around the HCHS campus and then comparing the characteristics to

native/ “Florida Friendly” plants. Then, using the data collected and the comparisons made between the plants on campus and those on the internet; compare the numbers to see if the HCHS campus is more densely populated with non-native/non-“Florida Friendly” plants or native/ “Florida Friendly” plants.

The plants on the HCHS campus consisted of grass, small trees and few large trees. The grass growing on campus was very thin. The small trees lost their leaves and were very twig like. The larger trees seemed to also shed their leaves but seemed to keep nutrients for their outlook was much healthier. After researching on the internet on the site Florida-Friendly Plant Database, many of the characteristics of the plants on the HCHS campus matched those that were native/ “Florida-Friendly”. The small trees that are grown around the campus, like in the court yard, look much like the Florida Privet species of trees. The larger trees shared characteristics with both the Laurel Oak and Myrtle Oaks. Of these tree species both are native to Florida, however the Myrtle Oak shared a few more similarities with the trees on campus then the Laurel Oak did. The Myrtle Oak grows acorns and can be anywhere from six to twenty feet high. The large trees in the court yard drop acorns in autumn and are also close to the size range of the Myrtle Oaks. The palms on campus resembled the Cabbage Palm. The Cabbage Palm is also native to Florida. This palm’s branches stretched outward and the tree trunk was tall like the ones around campus; such as the one next to the flag pole in the court yard (Florida-Friendly Plant Database).

Many of the plants on the HCHS campus seem to share many characteristics native/ “Florida Friendly” plants share. Through the research and data collected the hypothesis was neither supported nor rejected; because many of the plant species on campus did show similarities to the native/ “Florida Friendly” species. There was no way to detect if non-native/ non-“Florida Friendly” plants would have a negative influence on the campus. If this

investigation were to be improved and reworked then more plant species would be researched and more characteristics found to better determine if the species were native/ “Florida Friendly” or non-native/non-“Florida Friendly” and what impact they had around the HCHS campus.

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