Tree And Plant Life Survey Essay, Research Paper

Tree and Plant Life Survey

In this experiment, conducted by Mr. Luckinbill’s AP and Advanced Environmental Science class, our goal was to take a trip into the woods behind the Blue Mountain High School and identify and find the relative dominance and density of the tree population and to identify the plant life as well. I believe that we will have found mostly oak and pine trees in the forest, at first glance, they seem to be the dominant trees.

For this experiment, we took both a book of trees and a book on plants, and a measuring stick. When we got to the woods, we used something known as the quadrant method, in which we were given a spot, and we picked a tree in the 4 areas around it. For that tree we picked, we had to identify it and find its circumference with the measuring stick. We did that for a total of 8 quadrants. Then, the following day, we went to the field in front of the woods, and did a survey on a section given to us by the teacher. We identified a plant, and found how many of it there were in the area. At the end of these experiments, we calculated the total number of trees, their total density, and found relative dominance and relative density. Then we calculated the total number of plant life as well.

During this experiment, we have found the forest we investigated to be in a secondary succession seral stage. A sere is a stage in the successional process that is characterized by certain dominant forms of plants and animals. In the primary succession stage, there is not that much animal life found, as it is a barren area with not much soil. But animals such as squirrels, groundhogs, etc., probably could be found here. Not many water living animals, however, as there is not much water found anymore. In the secondary succession, there are a lot of animals to be found. Birds, smaller animals, deer, and aquatic animals are all habitants here. In this forest, there is no climax forest type. Humans could have an impact on a climax forest in that once you damage a tree in its climax stage, it might not be able to fix itself. This impact could change it back into a successional stage, where it would be a while until it grows back. The advantages of climax vegetation stage over the other stages are there is not competition between certain things as the forest grows into a climax stage. In a climax stage, everything is fully grown to its potential. As successional stages change, wildlife increases, there is increased amounts of water, human recreation is increased, and lumbering increases. However, human leisure and lumbering will both throw back the succession of the forest. Fire could affect a climax community in that it could hurt the trees that badly that they could not grow back. Using to fire to control succession may be used when a forest is growing too much, and there is not enough sunlight getting through to the plant life. Secondary successional growth would most likely have the most plant and animal life, and it is still growing, and there is plenty of water and sunlight for the plants, and there is plenty of food for the animals. All regions of the earth do not have a climax forest, due to intense weather and climates. An example is a desert. Agriculture practices using secondary succession, because there is a healthy amount of topsoil and lots of sunlight.

In this report, we covered what all occurred with the experiment, its results, and gave you a brief description of forest successional stages. In the back part of this report, you will find the results of our forest analysis in graph form.