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Physics

Environmental Engineering Project

Last year, during the summer of 2012, an area covered in bushes and some trees burned behind the school. Even though it is very rainy in Washington, that’s why we’re called the Ever Green State; in the summers it can get very sunny and hot.

Usually when a natural area burns down it takes about 20 years for it reconstitute itself. But during those 20 years, invasive species that have better survival chances in the burned area, can take over replace the natural organisms that once lived there. In WA the invasive species are mostly plants like Tamarix, Parrotfeather, and Garlio mustard. When those plants replace or invade the new created area, this is called secondary succession. Secondary succession differs from primary succession because it gets started by an event, in this case the fire caused by a human. To speed up secondary succession we could plant trees or other plants into the rich soil that was provide by the area that burnt down. If we do so, we also could preserve the natural species that lived there instead of letting invasive species spread.

The fire took about 2 days to be extinguished. By then 53,000 square meters had burned and destroyed every living organism in its inferno. By now, about 10 months later, some bushes and plants have started growing on the still black burned ground. But a forest fire creates a perfect, rich in nutrients soil for a new beginning; it gives plants a new chance to grow. If we would plant species, it would help the environment to recover.

To see what kind of animals were already present in the burned area, our class went with small groups in to the forest and took notes on what we heard and saw. My group changes place every time we went in the forest and so we found tracks of coyotes and deer. We put the notes we took on the species into a chart with a detailed position where we found them. We also put down the number of species we found, what kind, what day, and if we were sure or unsure about it. Everyone in our class put their data in the chart so that we can have a rough idea on how the fauna and flora is.

I believe our most seen bird was the American crow and the American Robin, but our group also saw a Blue heron. The Blue heron shows that there is water around the area because they like to eat fish. Like said earlier, this is the Ever Green State, which means there will always be some kind of trees or bushes. When our class went out to collect data, my group went a little further, shown on this map: <http://www.arcgis.com/home/webmap/viewer.html?webmap=4d0e6dc5e6024046a4f3cc31178b1530> . That is probably why my group had a bigger diversity concerning the fauna of the area. We left the burned area and checked the habitat around into have something to compare to.

Right now, in the burned area, occurs secondary succession without any human input. The fire left a rich in nutrients soil which plants and trees can easily use to grow. We could plant some seeds to quicken the process but nature has it’s own ways. What we also could do is protect the young growth and watch that no invasive species, that can adapt itself quicker, just takes over the area. It would be sad if all the original flora just disappears.

So it has something good to it that the area burned down. Now the flora can renew itself and new species can also grow.

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