Catalina hour plinian eruption. crops that were

Environment

Catalina LoeungTom WolvertonBiology 10 October 2017Mount St. HelensOn May 18th, 1980, a tragic eruption took place in Washington that changed the way we studied volcanoes forever. Mount St.

Helens had a dense forest where there was little light and low wind speeds. The eruption caused a pyroclastic flow and ejected tephra falls. A 5+ magnitude earthquake along with many other smaller earthquakes struck and a nine hour plinian eruption. Crops that were exposed to hot ash were destroyed.

Some plants grew back faster than others, it depends on how much rainfall a certain area gets. Thousands of animals were killed by the eruption and affected aquatic life and birds. Animals were killed by the hot ash, tephra falls and other natural disasters that were caused by the eruption such as a forest fire or earthquake. The lakes within the blast zone showed a dramatic increase in heterotrophic bacterial numbers. The volcanic ash helped the soil tremendously. Volcanic soil is very rich in nutrients, holds water and minerals that are good for the plants. The ash takes awhile to become good fertilizer. But too much ash smothered plants.

Mount St. Helens is now in secondary succession, since when it erupted, the soil was intact, the ash mixed with the soil and made the soil fertile enough to start re-growing slowly. Some parts are primary succession though. Primary succession is the evolution of biotic life including animals and plants in an uninhabited habitat. Secondary succession is the evolution of biotic life in an uninhabited habitat that had soil left intact. Canopy cover is the measurement in which trees cover that is important for determining how

much sunlight enters an ecosystem of habitat(Variable Explanations, 13). Macroinvertebrate richness is the amount of individuals are in a species in a certain location(Variable Explanations, 14). We hypothesise that if canopy cover increases, then macroinvertebrate richness will increase.

First, we have to the relationship between canopy cover and macroinvertebrate richness in order to see how macroinvertebrate richness is impacted by it. As leaves fall from the trees(http://blog. nwf. org) that provide the canopy cover, leaves will fall into the water and begin to start creating a benthic detritus cover. Benthic detritus cover is a layer at the bottom or a body or water composed by dead organic material (Variable Explanations, 16).

According to hamiltonhabour. ca , macroinvertebrates can be separated into four feeding groups such as shredders who eat dissolved organic matter like leaves and other vegetation, algae, bacteria, etc. If the canopy increases there would likely be more leaves that fall and make benthic detritus that the macroinvertebrates will most likely consume it and increase in richness. ProcedureFirstly, start with “ 2017 All Aquatic” excel sheet and open a new excel sheet. Second, go back onto the 2017 All Aquatic sheet and look at the bottom. There you will find tabs, click on the one that says The data refutes my hypothesis. The trendline shows that as canopy cover decreases, macroinvertebrate richness goes up. If you look at the last point on the graph, that is closest to the right, you can see that