In fall of 2012 the researched area behind the school burned down and destroyed the climax community that existed there. A climax community is a habitat of flora and fauna in equidelibrium. This means that after growing the community has finally reached the final stage where it barely changes. A climax community develops because the species that fit in best in the condition. After the fire this climax community got destroyed and a new community is about to develop. Unfortunately, while the new community is developing, there are many invasive species that establish to the new community. This happens due to the old climax community not being a natural grown community , but a area with already a lot of invasive species. There are a lot of invasive species in Washington State and a lot of them also appear in the area. Principally there are a lot of noxious weeds and grasses, for example the Perennial False-Brome. After the fire there is no active effort done to influence the habitat restoration. To help restoring a natural habitat without invasive species work needs to be done. Invasive species must be removed and local species must be planted.

The burns in the area of the sitting spot are severe. All trees that once stood there are now burned and black. The only things that are not burned is the noxious weed that grew after the burns. The area around the sitting spot is like a little lake with a little bit of water after rain. Now, after the burns there is a chance to start over to create a new habitat that does not only consist of invasive plants. However, to reach this goal changes need to happen. The weeds and invasive plants that already grew need to be removed and new need to be contained from growing. These are not the only changes that need to happen. Apart from just prohibiting the bad plants from growing, the local species also need help to establish. So these plants need to be planted in order to create a new, better habitat.

The area around the sitting spot is severely burned and there are no trees left unharmed. All trees in the closer area are burned black. South of the sitting spot there is an area with no trees but instead a little pond that is only filled with water shortly after rain. On the ground were some new plants that just grew mostly noxious weed. The ground around the pond is covered by some mosses and lichens. There are a lot of birds that sitt in the burned trees. There were a lot of American Crows, American Robins, and Swallows. There was also one woodpecker that made a hole in a tree. In the GIS map every sitting spot was marked with a pin and the information collected on this sitting spot was added to the pin.The GIS map was used to display all the different sitting spots and the different observations made in the different places. With help of the GIS map the differences in the area could be compared and contrasted.

In the burned area the kind of species mostly detected are birds. These are reported in all sitting spots throughout the area. There are also a few reports about hummingbirds and a squirrel. However apart from that there is not a big variety of species. On the plant side there are hardly any reports about plants and trees. On my sitting spot there were mainly birds as seen in the other sitting spots. There were also some plants; principally noxious weeds.

“Restoration is broadly defined as the act, process, or result of returning a degraded or former habitat to a healthy, self-sustaining condition that resembles as closely as possible its pre-disturbed state.”(What, 1). This act of habitat restoration includes several steps that can be done in order to create a new, healthy climax community.” The essential first step in stream habitat restoration is to conduct an adequate comprehensive watershed analysis and assessment.”(Stream, 1). After analyzing the circumstances, the first active steps can be taken. The two main steps in a habitat restoration are removing invasive plants and plant local plants that suffered from the invasion of the invasive plants. (Habitat, 1). In this specific case first all invasive plants and noxious weeds need to be removed. This can be done best by hand since there are not that many plants and they are wide spread. Then local plants like the Pacific silver fir or the Baneberry (Washington, 1) need to be planted again so they can establish without interference by invasive plants. After that the habitat needs time to restore and needs to be controlled frequently to prevent invasive species from respreading.

The project done by our physics class was created to provide information about habitat restoration since the chance to do this research is not always in reach. During the project every student got a sitting spot that was free to choose. Then, in ones sitting spot, data was frequently collected on 4 dates. This research was now all put together and united in a GIS map and a table. In addition to this, this project also informs about the different types of habitat restoration.

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