Effect Of The Habitat On The Butterfly Population: Experiment Report

The purpose of this experiment was to investigate the effect of the habitat on the population of butterflies. This experiment was conducted by using two different shades of backgrounds to mimic the habitats. We also used colored hole-punched paper and tweezers to demonstrate butterfly species and bird beaks. This was to measure the butterfly population. It was hypothesized that if the color of the butterflies and the habitat are similar then they are more likely to survive because it is harder for predators to see them.

In this experiment, the effect of the habitat on the butterfly population was investigated. Throughout the light background experiment, the purple and white population increased rapidly. For example, white was the steepest increase which went from five to thirty butterflies over four generations. The red population increased gradually. The green butterfly population was constant because it didn't change a lot between the generations. The blue ones gradually decreased at a steady pace starting with five in the first generation and ended with one in the fourth generation. During the dark background experiment, white was also the steepest increase. The green, purple, and red populations were constant correlations. For example, the first purple generation started with five butterflies, and throughout the four generations ended with ten. Lastly, the blue butterfly population began with a gradual decrease. However, when the population hit zero during generation two, the graph turned into constant correlation because didn't change. We cannot identify the range, consistency and data reliability because there was only one trial for this experiment. Therefore, we don't have anything to compare the results to.

It was hypothesized that if the background was similar to the color of the butterflies then the population would thrive due to camouflage. This was our hypothesis because if the butterflies are well adapted to the environment, the predators will not see them. So, the butterflies will be able to reproduce to make the population greater. The data partially confirms the hypothesis. For example, the white butterfly population was expected to survive for the light background because the colors were very similar. By looking at the data, we can see that the white butterflies began with five and ended with thirty during the last generation. This proves the hypothesis correct. Nevertheless, the white butterflies also performed very well on the dark background. This was unexpected because the butterflies were easy for the predator to see which lead us to think that they would not survive. During the initial generation, there were five butterflies but, in the fourth generation, there were thirty-eight. This experiment shows that our hypothesis was partially correct.