

To protect living creatures

1. Motivation behind Research Paper

Reducing marine debris and protecting sea creatures are the purpose of my research. Picking up trash in the ocean makes the ocean cleaner but it is temporary. That won't stop littering. However, we were in trouble working on the issues because there is no sea in Nara. Then I found a research paper. It is a document of the survey results of a corporate organization called the Kanagawa Coast Beautification Foundation. They are continuously cleaning the coast. Their findings show that about 70 percent of the garbage on the coast comes from rivers. Sea garbage is related to rivers because we wanted to reduce the amount of garbage in the river.

2. Introduction

We thought that we must first change the awareness of people who throw away trash. We thought that if people's awareness could be changed, they would unconsciously stop throwing away trash, and the amount of trash in the river would gradually decrease. For comparison, two sets of five tree-lined plots were used as the target plots. A sign with a picture of eyes was placed on a tree in the center of one plot, and no sign was placed on a tree in the other plot. The experimental compartments were divided into A1, A2, A3, and A4, respectively. Once every two weeks, we recorded the amount of garbage in each subplot and its location. We also

did the monthly trash pick up. In other weeks, we did not pick up trash, but only measured.

3. Results and Analysis

Experiment conducted on April 2nd

There was no change in the amount of garbage in each area. No trash was seen in Area 4. The results of the experiment over a short period of two weeks made it difficult to judge whether the signboard was effective or not. The experiment needed to be continued. At this time, we did not pick up garbage.

Experiment April 16th

In Area 1, the amount of garbage on the one with eyes had increased by one. However, in Area 2, there are two more pieces of garbage in the area without eyes. In Area 3, both decreased. And the amount of garbage in Area 4 (an area with no signs) increased rapidly.

Experiment May 1st

There was no garbage in Areas 1 and 2 with and without eyes. In Area 4, we picked up trash, so it became 0. In Area 3, the amount of garbage was falling.

Experiment May 21st

Without eyes, the amount of garbage increased in all areas.

Experiment June 4th

There was little garbage because it rained heavily the day before. There was not a single piece of garbage in Areas 1 and 2. Area 3 had some garbage on the side where the signboard with eyes was. Area 4 had garbage on the blind side. From this result, it can be seen that there is less garbage around the signboard.

Experiment June 18th

Looking at Area 2, the amount of garbage was higher without eyes. However, when I looked at Area 1, I saw that garbage had fallen only in the direction where the eyes were. If you look at Area 3, you could see garbage falling only in the direction of the eye. In Area 4, there was no trash on both.

4. Conclusion and Future Problems

In order to achieve our goal, we have been conducting river cleanup activities and experiments. A signboard with eyes was set up and after that we have checked every two weeks for debris. Due to the weather and grass growth, it was sometimes difficult to observe. However, we were able to achieve such results. After the experiment, it was found that the amount of garbage was reduced by 59.52 percent because of the signboard. From this we can say that people can change their consciousness if there are external factors.

5. Reflection

Through this exploration, I was able to acquire a variety of knowledge. I would like to make use of what I have learned in the future. More people need to be aware of this problem. And we must do what we can do to solve the problem. I feel that it

takes time to solve this problem. However, I thought that if each of us takes action, we can get closer to a solution. I will continue to think about it.

6. Work Cited

Kanagawa Coastal Beautification Foundation, "about coastal trash," . 2020.

<https://www.bikazaidan.or.jp/kaigangomi/>