

Let's Know About the Nature of *Matsumoto* City!

~ Scarce Large Blues Living in *Matsumoto* City ~

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Nagano Prefectural *Matsumoto Agatagaoka* Senior High School Academic Inquiry Course

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1. My Activity

1.1 Preparations

The purpose of my activities is “for the citizens of *Matsumoto* city to learn about the nature of their town, share it with each other, and make the natural environment around them a better place.” I have thought that “Learning about the conservation of nature at school is too abstract for people to take it as a problem of their own, and fails to improve the natural environment of *Matsumoto* city, *Nagano* Prefecture, and Japan”, and that “*Matsumoto* city has the problem that its citizens do not know enough about its nature”.

I have conducted a survey for senior high school students in *Matsumoto* city on Google Forms, and received 80 answers. I asked whether or not they knew what “the flower and tree of *Matsumoto* city ” is: 73.8% of the students answered that they did not know the “city flower”, and 64.2% answered that they did not know the “city tree”. From this result, that most of the citizens do not know what the flower and tree that symbolizes the nature of *Matsumoto* city, I have inferred that most of the citizens do not know much of the nature around them.

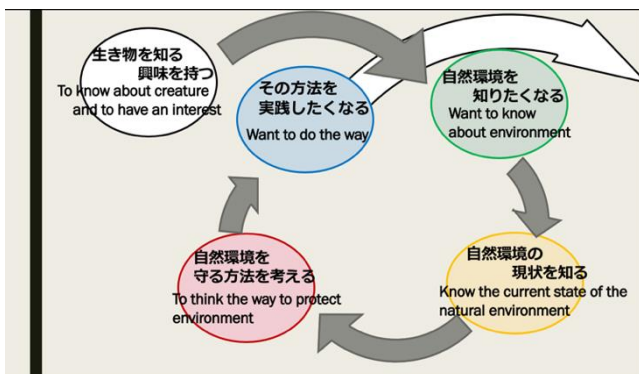


Fig. 1

Inserted from

<https://moricl.u.jimdofree.com/%E3%82%B4%E3%83%9E%E3%82%B7%E3%82%B8%E3%83%9F%E3%81%A8%E3%81%AF/>

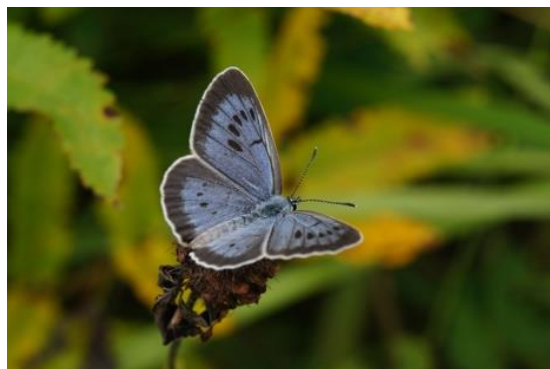


Fig. 2 Image of Scarce Large Blue

I came up with a cycle as shown in Fig. 1 to solve the problem of how to conserve the natural environment. For the life form that will start this cycle, I chose the “Scarce large blue” (Fig. 2). There are two reasons why I chose this butterfly.

First, the scarce large blue is an endangered species specified in Japan, and only lives in a limited area of *Matsumoto* city, called the *Nagawa* region. Second, they have a special life cycle. Scarce large blues lay eggs only on plants called “Great burnets”, and their larvae live in ant nests, feeding on ant larvae. I chose the scarce large blue as theme for solving my problem, for its strong relation with other life forms, and its small population.

1.2 Activity

I have performed my activity at the “*Agata Children’s Center*” (1-3-20, *Agata, Matsumoto* city, *Nagano* Prefecture, Japan). The reason why I did so is “to make sure that people will participate”, that “children are more interested in insects and their modes of life than adults”, and that “children like to talk about what others do not know”.

The activity is performed as the following:

1. I tell the children about the scarce large blue.
2. I tell them about the nature of *Matsumoto* city.
3. I let them think about environmental problems
4. I let them think about how they can help to solve these problems.
5. I let them converse about their ideas.

I performed this activity for a little more than two months.

At the *Agata Children’s Center*, I held a “mini-lecture”, and taught the children about the scarce large blue and its ecology. Then we went to the playground, and performed a “mini-fieldwork lesson”. We observed mostly ants and butterflies during the fieldwork lesson. We observed small insects, because the scarce light blue is about 3cm long, and learning about ants is effective, for it being known that scarce large blue larvae live together with ants. The children did have some knowledge about ants through the everyday encounters with them, but I made measures to have them observe more carefully. For example, I asked the children questions to see whether their knowledge corresponds with the reality, such as whether or not the insect actually had six legs, or whether or not it had two antennae.

Two months later, I came back to the children’s center, and let the children think about the three following matters related to the environment.

1. What it means for nature to be destroyed.
2. Why the nature of *Matsumoto* city is being destroyed.
3. What they can do to prevent destruction.



Image 1
At the Mini-Fieldwork

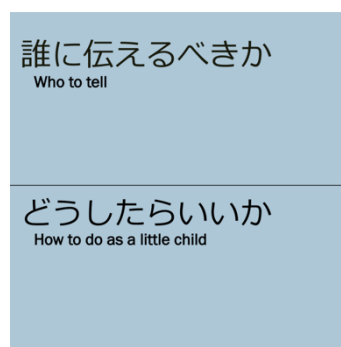


Fig. 3 Origami Paper for
Children to Write their
Goals

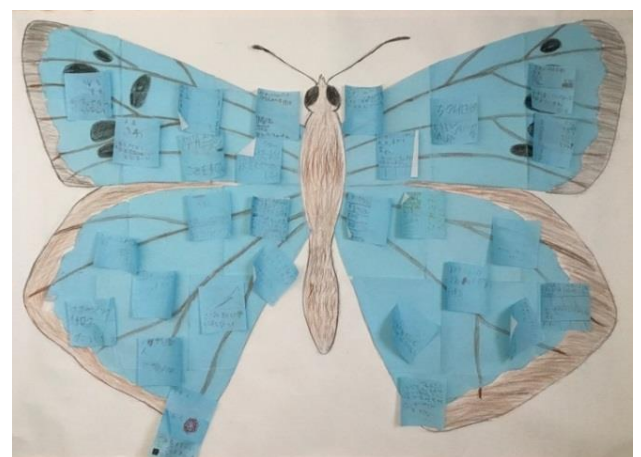


Fig. 4 Origami Paper with Goals
Pasted on Drawing of Scarce Large Blue

After I let the children discuss about the three topics, I let them present their ideas in front of their friends, so we all can share them. Then I passed out pieces of *origami* paper to the children, let them write about “who they are going to tell this activity to”, and “what they should do” as in Fig. 3, and had them paste the pieces of paper on a drawing of a scarce large blue which I prepared as in Fig. 4, to make their goals visible. Then, if the children succeeded in telling the person they were going to about the activity, I asked them for an autograph on the piece of paper, and to re-paste it on the drawing, so the children can visualize and share their achievements.

I divided the activity into two sessions: the mini-lecture and mini-fieldwork for the former, and the discussion about environmental problems for the latter. During the former session, the children eagerly listened to my lecture, scrambled for ants, and reported them to me. I once again realized that children are interested in creatures, and felt that performing the activity for children was the right way of doing it. I performed the latter session two months after the former, and to my surprise, most of the children remembered the scarce large blue. I think that moving around outdoors, and taking up creatures around them, strongly helped fix the memories into their minds. For the latter, even though they were asked who to tell about the activity and what to do, which is quite a difficult question, the children wrote answers like, “I’m going to tell Mom not to litter on the streets”, and “I’m going to tell my teacher, friends, and family not to waste water”, and pasted them on the drawing. They thought hard about what they can do to conserve the environment. The children’s center let me keep the drawing for a week to visualize and share the achievement of “telling someone about what they want to tell”, one child succeeded, and re-pasted the signed piece of paper on the drawing. He/She definitely told his/her friends what he/she thought of doing to protect the environment. I think more children would have been competitive in getting autographs if they let me keep it in the children’s center a little longer.

Through this activity, I found that the children had spread what I taught to those who do not know about me.

2. What I Have Noticed and Understood Through the Activity

I have understood two things through this activity. First is the “importance of enjoying the activity”. The sessions I performed at the children’s center were both about an hour long. According to the head of the center, the attention span of a child from first to third grade is only about 15 minutes. I think that the children were able to pay attention for four times as long as they usually can do not just by listening, but by doing some sort of activity, and by enjoying the activity. Second is the fact that “adding the ‘imagination’ to make solutions, and the ‘creativity’ to take action enables you to acquire things”.

I, as a senior high school student, have acquired quite a bit of “imagination” to solve problems at school, but have not acquired the “creativity” to take action. However, for the first time, I came up with solutions, made plans, and put the activity into action. I strongly felt that I have acquired experience through this activity.

3. Problems and Plans for Improvement

The biggest problem I had with this activity is that “the scale is very small relative to the goal”. This activity was performed by myself at one children’s center, but this activity displays its effect more when it is performed to a larger number of children. I need assistance from people who would like to help. Moreover, it

is important to use life forms that are familiar to the respective regions (the scarlet dwarf in the *Ina* region, for example) as themes to perform the activity I had performed, in other words, the cycle of Fig. 1, in many more areas to make opportunities for children to think about environmental problems. I would like this activity to grow into a national scale with a variety of local life forms as themes. I also would like to continue activities myself at the children's center to tell children about environmental problems. If I have an opportunity to give a presentation about my activity, I would be eager to participate, let people know about my activity, and spread it to everyone. Moreover, I would like to revise my activity to achieve the goal of "having the citizens of *Matsumoto* city learn about the nature of their town, share it with each other, and make the natural environment around them a better place."

4. Acknowledgements

I would like to say a special thanks to the head and staff of the *Agata* Children's Center. I would also like to show my gratitude to Mr. *Hiroaki Ito*, teacher at the *Matsumoto Agatagaoka* Senior High School, for his advice about my activity and opportunities for presentations