

# **Kahokugata Lake Institute Diary**

## **~What I learned at the Kahokugata Lake Institute 1 ~**

From February to March 2021, I had the opportunity to experience activities carried out at the Kahokugata Lake Institute as a volunteer/intern. I am very grateful for the countless experiences and learning experiences I had during my time here, because I was looking for opportunities to learn about the specific work carried out by environmental NPOs and to understand what is important when undertaking such work. I am currently studying environmental issues and biodiversity conservation at university. I felt that university lectures alone made it difficult to understand what concrete actions should be taken to address environmental problems and conserve biodiversity.

In this article, I wish to describe the activities I undertook during my time at the Kahokugata Lake Institute, along with what I learnt, what surprised me, and what struck me as fresh and new. Although I gained experience across a wide range of areas, this account will focus particularly on those things that remain most vividly in my memory. I extend my heartfelt gratitude to Ms. Kawahara Nanae, who accepted me as a volunteer/intern and provided warm guidance and care, and to all the staff at the Kahokugata Lake Institute.



## **Identification of paddy field organisms and about the “Ikimono Genki Rice” brand**

Among the various activities I experienced during my placement, identification of organisms from rice paddies was the task I undertook most frequently. Consequently, it provided the most insights and learnings and remains most vivid in my memory. Specifically, the work involved using a microscope to identify the types and numbers of insects collected from paddy fields for biological surveys. I then organized the data by field and collection date. As the biological surveys were primarily conducted in fields cultivating “Ikimono Genki Rice”, I also studied about this specially certified rice brand that is grown in organic farming approaches.

Through this activity, my understanding deepened, particularly regarding the factors influencing rice paddy biodiversity. For instance, I learned that biodiversity in paddy fields is significantly influenced not only by the field environment itself, but also by the adjacent embankments. The identification and counting survey revealed that rice fields belonging to farmers who diligently mow their embankments had fewer rice-eating pests than the paddies that were not neatly mowed. This insight led to the realization that when investigating rice paddy biodiversity, one must not focus solely on the paddy environment itself but must remember that factors in the surrounding areas also play a role.

Before learning about the “Ikimono Genki Rice”, I had believed that the more pesticide is used, the lower the yield and the harder it is for farmers to make profit. However, I learned that this is not always the case because although more labor is required in pesticide-free farming methods, certification or branding approaches can allow the harvested rice to be sold at a higher price. I hope that such marketing potential could become a tailwind for the future spread of cultivation methods using fewer pesticides. Through studying “Ikimono Genki Rice”, I gained valuable insights into the effects of pesticide levels in paddy fields, the potential for reducing pesticide use, and the marketing opportunities available. It provided a fresh perspective and was an invaluable experience for me.

I would also like to share two memorable episodes from when I undertook this activity. Once, whilst I was desperately trying to identify a certain insect, no matter how many times I checked the field guide or read the descriptions of how to distinguish species, I felt that no species matched how the insect in the microscope lens looked like. Consequently, my mind was filled with question marks, and I had no idea what to do. So, I asked the Director. The Director looked at the insect and immediately said, ‘Try this encyclopedia,’ bringing me a different one. Sure enough, that guidebook contained a photograph almost identical to the insect before my eyes. To cut a long story short, I hadn't realised that the insect, a *Conocephalus maculatus*, belonged to the Tettigoniidae family. Because its appearance resembled that of an Acrididae, I had only been using an Acrididae encyclopedia. I was deeply impressed by the Chairman, who recognized it instantly, thinking he was like a walking field guide.

Another episode also occurred while I was earnestly identifying insects. What I was identifying at the time was a chironomid larva, which I was told was a type of mosquito. Having been prone to frequent mosquito bites since childhood, I counted these larvae while muttering to myself, ‘What a hateful creature, the chironomid—it has no reason to exist.’ However, Nanae-san, who was helping me with the identification, explained that these midges I was counting don't bite humans and that they serve as food for animals like frogs and birds. She told me they are creatures indispensable within the rice paddy ecosystem. Learning that they don't bite humans and play such an important role in the ecosystem, I suddenly felt affection for the midges. And I want to say, ‘My apologies for treating you as villains, midges.’ Next time I encounter a cloud of midges, I think I'll be able to view them positively – not as a nuisance because they get in my eye, but as vital members of the ecosystem. (To be continued in the next issue)

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## **~What I learned at the Kahokugata Lake Institute 2 ~**

From February to March 2021, I had the opportunity to experience activities carried out at the Kahokugata Lake Institute as a volunteer/intern. I compiled what I learnt and found interesting into a report. (Continued from previous issue vol.26-3)

### **Wild bird surveys at Kahokugata**

The bird surveys took place outdoors, and as I love working in nature outdoors, this task remains vivid in my memory. Specifically, we drove around several windbreak forest belts in the Kahokugata area, staying at each location for 20 minutes to observe bird calls and sightings, counting the number and types of birds present. I learned a great deal during this activity too, so I'll write about the things I learned and reflected upon during this activity.

Firstly, I learned about the ecology of ducks, and was quite astonished as it was entirely different from my preconceptions. Having often seen ducks on rivers and lakes, I assumed they fed on small fish or microorganisms like plankton. However, during the fieldwork, Ms. Kawahara taught me that depending on the species, ducks can be nocturnal and prefer young grass. I was astonished. Furthermore, as the term “night blind” suggests, I had assumed most birds couldn't see once it got dark, so I was also very surprised to learn that there are nocturnal ducks. Though I had always thought ducks were cute, it turns out that due to this nocturnal trait and their preference for young grass, they often feed on the pasture grass and barley of dairy farmers at Kahokugata at night. This apparently causes bird damage to the dairy farms. Learning about this side of ducks was a real eye-opener and a profound learning experience.

I also learned about the significance of windbreak wood belts. I learned that they not only block the wind but also play a vital role in the bird ecosystem. For example, small birds, when flying in open areas, become targets for predatory birds, so they tend to fly and move between tall grass and trees. Moreover, it is easy to imagine that the fruits of the trees within the windbreak wooded areas and the nectar from the flowers serve as food for birds. Therefore, I understood that windbreaks form part of the bird ecosystem.



Seeing so many birds and hearing their varied calls was truly an enjoyable experience for me. Though I still cannot distinguish all the different bird calls, it was wonderful to hear so many lovely sounds. Ms. Kawahara, who accompanied me on the survey, could identify birds instantly just from their call or a fleeting glimpse, which I thought was amazing. During the survey, birds were often reluctant to show themselves, meaning we sometimes had to wait in the car for quite a while. However, even that time felt very worthwhile – gazing at the natural scenery of Kahokugata, breathing the fresh air outside, and feeling refreshed.

Participating in bird surveys made me realize that it would be ideal for bird surveys to become more widespread in society. The survey involved spending 20 minutes at each windbreak area and visiting around ten such areas, which took quite a considerable amount of time. Consequently, I felt that even for those working at environmental NPOs, conducting this activity regularly would be quite challenging.

if they had other heavy workloads. Therefore, I thought that if bird lovers and those who enjoy birdwatching could assist with data collation, it would be enjoyable for them and also reduce the workload for those employed in the field. In the future, I believe it would be beneficial to involve citizens in collating environmental data.

Regarding the maintenance of windbreak wooded areas, personally, I felt that all the windbreak belts we visited were rather small in scale. I questioned whether a windbreak belt only about 20 meters wide could truly block the wind. Moreover, as each windbreak belt stood isolated without continuity with the other forested areas, I also questioned their effectiveness as migration routes for birds. Therefore, even if it proves practically difficult to progressively expand the windbreak belts around Kahokugata, introducing trees bearing abundant fruit might enhance bird diversity. Although the trees were leafless during the winter survey period, I believe that maintaining the windbreak belts to create structural diversity with different canopy layers would undoubtedly enhance the natural richness and overall beauty of the Kahokugata area.

## **Web Conferences and Symposiums**

During my time at the Kahokugata Lake Institute, I had the opportunity to participate in four web events. Two of these were symposiums, one was a meeting called the National Conference of the Nature Restoration Council, and the other was a regular board meeting of the Kahokugata Lake Institute. Moreover, at one of the symposia, I was even invited as one of the presenters, which I found both very gratifying and rewarding. I shall share three reflections about participating in these events.

First, regarding the National Conference of the Nature Restoration Council. This event provided an opportunity to hear about the activities and initiatives of

environmental NPOs and organizations from across the country, which was very interesting. It was good to learn about each region, understanding that the forms of nature differ by area, as do the problems faced. For instance, the causes of problems vary widely: topsoil erosion in forests, tidal flat reclamation, conversion of farmland to housing, water quality deterioration from domestic sewage, concrete revetment works, and the influx of invasive species. I also realized the natural assets each region boasts are diverse too – from coral reefs to wetlands, grasslands, and forests. It was a valuable learning experience to hear all these perspectives from people working in such different environments at once, and to feel that these organizations, usually operating separately, could be connected through a sense of solidarity in a national conference format.

The second point concerns the regular board meetings at the Kahokugata Lake Institute. The atmosphere felt quite relaxed, making it easy to participate in the discussions. Attendees included individuals I had never encountered at the institute's office, reinforcing my realization that the Institute is actually run by many people. Beyond fieldwork like bird surveys, rice paddy activities, and collecting and identifying organisms, I learned that administrative tasks such as managing the institute's operations are also carried out.

The third point concerns the symposium. With participants from diverse backgrounds both as presenters and attendees, I saw it as an excellent venue for exchanging opinions. One participant who particularly stood out to me was a representative from a restaurant chain who was keen to learn more about certified organic rice brands that they could serve in their restaurant. It felt very refreshing to see people from different industries participating, not just environmental NGOs, environmental specialists, or those with a specific interest in the subject. I also felt that the symposium's promotional flyer was very appealing because I think it managed to visually attract people and raise awareness of the event. Although I was extremely nervous when presenting at the symposium, I am very grateful for the opportunity to gain this experience. (To be continued in the next issue)

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### **Reflecting on what I learned at this NPO**

The most valuable experience of my five-week volunteer/internship at the Kahokugata Lake Institute was undoubtedly gaining insight into the very essence of environmental NPO activities. Before being permitted to join the Kahokugata Lake Institute, I had little concrete knowledge of the specific activities undertaken by environmental NPOs, possessing only a vague notion that they likely engaged in various environmental conservation projects. However, upon actually immersing myself, I learned a great deal about environmental NPOs.

Firstly, I realized that continuing environmental conservation projects cannot be sustained by the Institute alone; collaboration and communication with farmers and the local community are crucial. For instance, rather than unreasonably demanding pesticide-free cultivation from rice farmers, it is vital to reach agreements enabling farmers to sustainably participate in the “Ikimono Genki Rice” project.

Furthermore, regarding bird conservation in the Kahokugata area, while there is support for seeking Ramsar Convention designation, farmers also suffer bird damage. I realized it is vital to respect both viewpoints and foster communication. Indeed, in environmental fields, communication and collaboration are indispensable. This is because numerous stakeholders are involved: agriculture and fisheries, the energy industry, service sectors including restaurants and shops, and consumers.

Secondly, I realized that effort and perseverance are also vital for advancing projects. Even a single biological survey of rice paddies requires immense time and effort behind the scenes, meticulously checking each species and number of tiny insects under a microscope. So, I learned that to complete a project, one requires

not only the initial idea, but also the grit to fulfill the project until the end even if challenges arise in the process.

Third, I learned that the staff at Kahokugata Lake Institute were engaging themselves in their work busily beyond my expectation. I saw times when they were so busy that they could not make time to have lunch and I heard stories that they hadn't taken any days off for over two weeks. Through observing them, I saw their passion for their work. During the time I worked with them, they were organizing events and symposiums almost every weekend, and I was amazed by their workload.

Finally, I felt that I have gained deeper insight about environmental NPOs because I realized that there are words that I have never associated with tasks of a staff at an environmental NPO. For example, the staff members visited other environmental NPOs for training opportunities to learn the newest skills and knowledge in this field. I had never imagined that staff at environmental NPOs would continue their education throughout their career and that there are interactions between different NPOs to provide training opportunities to each other, so seeing this kind of network of different NPOs was very refreshing for me. I think such occasions are an excellent opportunity for staff at different organizations to share the issues and solutions they are facing in their respective region.

Through all of these new insights, I now understand that to contribute to the environment and conservation sector, subject specific knowledge and skills are of course important, but communication and cooperation skills that enhance collaboration with stakeholders and other NPOs is essential, in addition to passion and grit to work in hard schedules at times. I am very grateful for my time here, because although there is ample opportunity to gain subject specific skills and knowledge in my university, I hadn't really learned what it really means to work in this sector, and thanks to my time here, I could gain an insight into career in this field. I hereby would like to extend my deepest gratitude once more to Ms. Nanae, the chairman, Ms. Banshou and all the other members who helped me during my time at the Kahokugata Lake Institute.