Research Activity Report
Supported by "Leading Graduate Program in Primatology and Wildlife Science"
(This report must be submitted within two weeks of the end of your PWS-sponsored trip.)

	2025. 10, 28
Affiliation/Position	Wildlife Research Center/D2
Name	Lin Chaoyu

1. Country/location of visit

Japan, Kumamoto

2. Research project

Animal Welfare Course

3. Date (departing from/returning to Japan)

2025. 10. 20 – 2025. 10. 23 (3 days)

4. Main host researcher and affiliation

Dr. Hirata, Professor at Wildlife Research Center, Kyoto University

5. Progress and results of your research/activity (You can attach extra pages if needed)

Please insert one or more pictures (to be publicly released). Below each picture, please provide a brief description.

Overview

Animal Welfare Course at the Kumamoto Sanctuary aimed to learn practical approaches to animal welfare through observing and assisting in daily care and enrichment for chimpanzees (*Pan troglodytes*) and bonobos (*Pan paniscus*) under the supervision of Prof. Satoshi Hirata.

Day 1 (October 20)

After arriving in Kumamoto at noon, we visited the bonobo and chimpanzee facilities. Prof. Hirata explained the group compositions, enclosure designs, and management systems of the sanctuary.

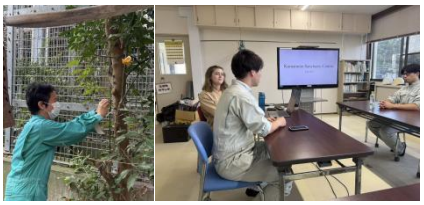
It was striking to observe the contrast between chimpanzees raised by humans and those reared within their groups. Human-reared individuals actively sought our attention−by banging on the mesh or showing objects, while group-reared ones were calm and indifferent. This highlighted the lasting effect of early experiences on social behavior and stress responses.

The bonobo group also showed complex social dynamics. A high-ranking female familiar with Prof. Hirata repeatedly invited him for grooming, yet because she had previously attacked other individuals who groomed her, he avoided direct contact. This example emphasized how hierarchy and interaction history must be considered in welfare management.

We also practiced individual identification of chimpanzees and observed the precision of daily husbandry work in day 1.

Day 2 (October 21)

In the morning, we helped prepare the chimpanzees' breakfast by cutting fruits, adding contraceptive medicine, and adjusting portions according to individual preferences.



During the lecture on animal enrichment and welfare, we learned that:
1) A lack of stimulation can lead to stereotypic behaviors such as self-directed aggression or over-grooming; 2) Enrichment should address foraging, social, cognitive, sensory, and spatial aspects;3) Effectiveness can be evaluated by engagement duration, participation rate, and behavioral diversity.

In the afternoon, we created two types of bamboo enrichment devices:
1) Honey feeder: a single bamboo segment filled with honey and soybeans.
2) Three-segment tool-based feeder: containing peanuts and soybeans in the middle section, requiring tool insertion and manipulation to extract food.

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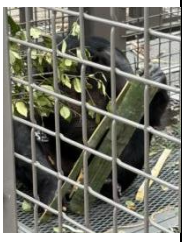
We assembled the devices and placed them in the bonobo enclosures. The two groups showed distinct preferences—one mainly played with the larger device, while the other focused on the honey feeder. Individuals showed curiosity and persistence, interacting for nearly two hours. Based on these observations, we discussed design improvements and prepared a second version of the devices for the chimpanzees, reinforcing the structure to withstand their greater strength.

During the observation, one individual showed regurgitation‐reingestion behavior, which Prof. Hirata explained was associated with stressful early rearing rather than present conditions. This case reminded us that early experiences can leave lasting impacts on behavior and emotional stability, underscoring the importance of preventive, trauma-informed welfare management.

Day 3 (October 22)
We began the morning by preparing food and setting up simple enrichments. Later, we observed a medical check on a chimpanzee named Haruna. Because anesthesia was used, keepers worked efficiently and cooperatively to minimize stress. The procedure highlighted the importance of coordination and trust in managing large primates.

In the afternoon, we installed the improved bamboo enrichment devices for the chimpanzees. However, it started to rain, and most individuals avoided staying outdoors. They continued playing with honey feeders under shelter. For the larger tool-based devices, one individual immediately began breaking them apart, while another individual carefully selected and tested several sticks as tools. Some were too thin and snapped inside the bamboo, making food extraction difficult, which led her to also resort to forceful methods.


Although we could not observe the entire process due to the weather, the chimpanzees remained actively engaged for about one to one and a half hours. Even though their approach differed from our expectations, the enrichment successfully stimulated exploration and problem-solving, demonstrating creativity and persistence under natural environmental constraints.

Day 4 (October 23)
We cleaned and organized the facilities before departure.

Overall Reflection
This course taught me that effective enrichment should be tailored to each species and individual, and that social relationships greatly influence welfare outcomes. I also learned that long-term trust between animals and caretakers is essential for meaningful observation and care. These experiences deepened my understanding of animal welfare—not merely as the absence of pain, but as the presence of choice, challenge, and natural behavior—and will inform my future research on flamingo social behavior and communication.

6. Others

I would like to thank Prof. Hirata and all members at the Kumamoto Sanctuary for their guidance and support, as well as the chimpanzees and bonobos for their cooperation.

I am also grateful to the PWS program for providing financial support for this training.