

Research Activity Report
Supported by JSPS Program for Leading Graduate Schools
“Leading Graduate Program in Primatology and Wildlife Science”

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| 2015. 12. 13 | |
| Affiliation/Position | Primate Research Institute/ M2 |
| Name | Aruga Natsumi |

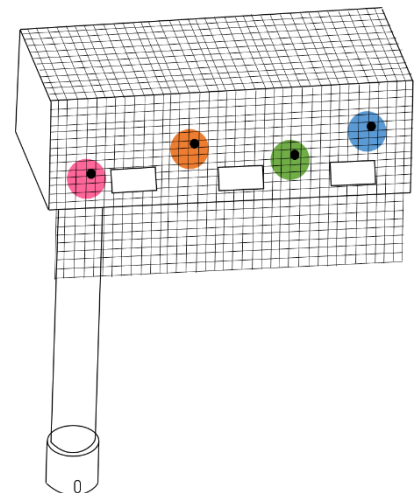
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|---|
| 1. Country/location of visit |
| Kyoto University Kumamoto Sanctuary |
| 2. Research project |
| Animal Welfare Course |
| 3. Date (departing from/returning to Japan) |
| 2015.11.24 – 2015.11.27 (4 days) |
| 4. Main host researcher and affiliation |
| |
| 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. |

I report the Animal Welfare Course in Kumamoto Sanctuary. We visited facilities, prepared birthday party for Suzuken (bonobo), and tried to make a feeder for enrichment.

I made an enrichment equipment once in Zoo and Museum Course at JMC, but it was the first time for me to make it from planning. So far, I have experienced visiting zoos and attending zoo workshops, and seen many types of enrichment equipment. In this occasion, we had much time to make it, so I wanted to make rather complicated feeder.

We tried to make a two-level of a puzzle feeder, named “COROCORO Soy Ball” (Figure 1). We put color balls on the upper box and we put soy beans or sunflower seeds in the hollow of color balls. Chimpanzees or bonobos can roll the balls using a stick or the fingers through the hole in the front side. When balls roll, soybeans or sunflower seeds fall through the tube. Chimpanzees or bonobos can get soybeans or sunflower seeds from the hole on the tube using the finger or stick.

We put this feeder in the enclosure of bonobos at first. Although wild bonobos do not use tools as well as wild chimpanzees do, they worked hard on the feeder using tools or the finger. The time bonobos worked on the feeder was 1 minutes 47 seconds in the average (Figure



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2). Louise was the best player among all the bonobos and she worked on the feeder in 14 minutes 10 seconds at the longest. Total time for three individuals was 1 hours 2 minutes 38 seconds.

We put the feeder in the enclosure of chimpanzees on the next day. I had expected that chimpanzees would work on the feeder more than bonobos because wild chimpanzees use tool more than bonobos. Chimpanzees started to work on the feeder 9 minutes after we installed the feeder in the enclosure. Sakura attacked the feeder and deformed it 14 minutes after we installed the feeder. Chimpanzees worked on the feeder 2 minutes 31 seconds in the average (Figure 3). Chiko, Sakura and Yoshie worked hard, while BL, CD, HN and OM did not worked on the feeder. Chiko was the one that worked on the feeder at the longest (25 minutes 33 seconds).

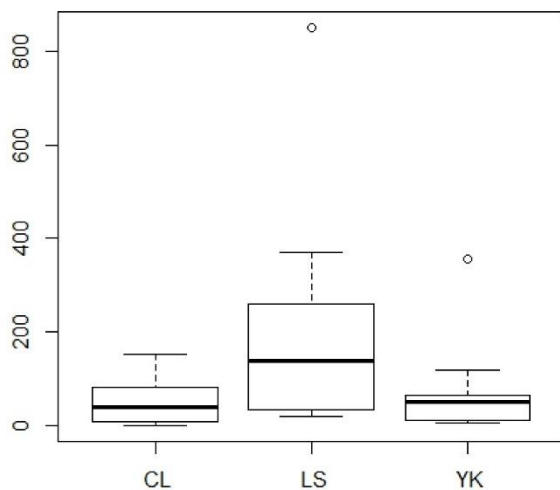


Figure 2. Time of using by bonobo

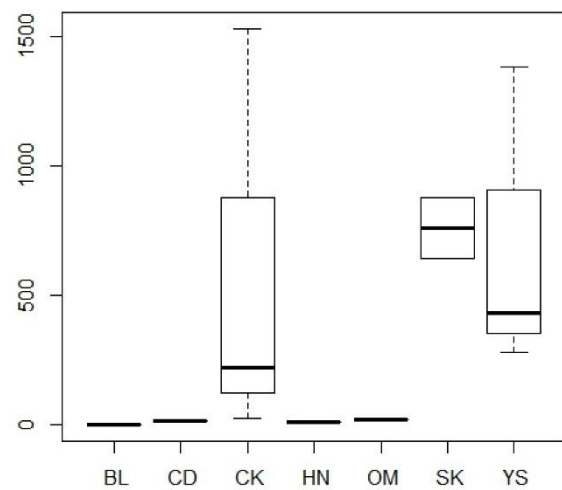
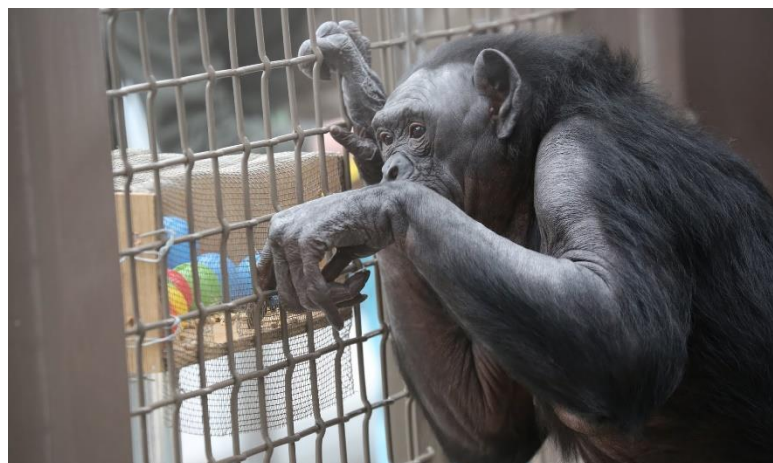


Figure 3. Time of using by chimpanzee

As I had expected, chimpanzees worked on the feeder longer than bonobos did. Even so, both bonobos and chimpanzees worked on the feeder more than I had expected. I made an enrichment equipment for the first time and it is a good experience for me. I found that usability, such as ease to clean, ease to install, and strength of the equipment, are important factors to design an equipment.



Louise is using our tool (photo by Yamanashi)

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6. Others

I would like to express my appreciation to the PWS program and staffs of Kumamoto Sanctuary for the opportunity to study.