Research Activity Report Supported by "Leading Graduate Program in Primatology and Wildlife Science"

(Please be sure to submit this report after the trip that supported by PWS.)

	2018.4.18
Affiliation/Position	Wildlife Research Center/M2
Name	Yutaro Sato

1. Country/location of visit

Japan/Kyoto, Kyoto City Zoo

2. Research project

Symposium at Kyoto University ("What is Unique and What is Typical of Human Mind ?"), Experiment at Kyoto City Zoo, Exhibition in "Introduction to Wildlife Science" at Kyoto City Zoo

3. Date (departing from/returning to Japan)

2018. 3. 29 - 2018. 4.16 (19 days)

4. Main host researcher and affiliation

Dr. Masayuki Tanaka, Dr. Yumi Yamanashi, and Dr. Yoko Sakuraba at Center for Research and Education of Wildlife, Kyoto City Zoo

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.

The aim of this trip was threefold: (1) to attend a symposium, "What is Unique and What is Typical of Human Mind ?" at Kyoto University; (2) to do eye-tracking experiment with chimpanzees at Kyoto City Zoo; (3) to make an exhibition in an event, "Introduction to Wildlife Science" at Kyoto City Zoo.

In the symposium, I could listen to some researchers' talk on comparative psychology and developmental psychology. I learned about their recent achievement, which greatly inspired me. Additionally, their presentation was so clear and easy to understand, which impressed me.

We started to do eye-tracking experiments at Kyoto City Zoo with the help of Center for Research and Education of Wildlife at the zoo. Dr. Kano, who is kindly helping my research at Kumamoto Sanctuary, gave me the opportunity to join. In this experiment, we measure apes' eye gaze on the monitor by an eye-tracker set under the monitor (Fig. 1). We give diluted juice from the tube in order to minimize their head motion and help them to attend on the monitor.

There are some important steps to do experiment smoothly. First, we want participants to stay calm in front of the monitor and suck juice from the tube. Second, we hope them to attend on the stimuli rather than the tube. Third, while we are testing one participant, we have to prevent the rest of chimpanzees from interfering the participant. We made efforts to this end, such as attaching juice feeders in the enclosure (Fig. 2). This was the first time for them to join the eye-tracking experiment, so it may take several weeks or months for them to habituate the experimental procedure (Fig. 3). At the same time, we, experimenters, need more practice of experiment with them. I felt we would cope with problems and start collecting data in near future. Considering that studies on great apes sometimes suffer from small sample sizes, cooperation between facilities is extremely important.

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Figure 1. A scene of eye-tracking experiment. An adult ape (Koiko) was participating the experiment and her son (Niini) was trying to cut in.

In the event, "Introduction to Wildlife Science", we made a booth to introduce Wildlife Research Center to citizens (Fig. 4). We distributed a pamphlet, which introduces students' activities. We also let visitors, especially children, to play with clay.

We prepared some images of animals and masked a certain body part of them (e.g., trunk of elephant, horns of giraffe; Fig. 5). Children made the body parts with clay and attach it on the sheet. we hoped that helped them to know bodies of animals more deeply. We made it so that children could actively manipulate something rather than just read materials or listen to talks, which would be boring for them. We hope visitors could enjoy our booth.



Figure 2. A juice feeder. We attached it on the fence to allow apes other than participant to suck juice. In doing so, we aim to prevent them from interfering the experiment.



Figure 3. James, a male, was sitting at the corner. He was not motivated to join the experiment. When we showed images of female chimpanzees on the monitor, he immediately came to watch them without sucking juice.

This booth was held outdoor and some materials were blown away by string winds. Because of this, we gave up another exhibition (concentration game of chimpanzee's face). We had to take some measures such as preparing paper weight and so on.

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Figure 4. Our booth.



Figure 5. Visitors enjoyed playing with clay. It seems that we know the shapes of elephant's trunk or giraffe's horns, but they were difficult to make with clay.

6. Others

I thank to every staffs at Kyoto City Zoo, especially Dr. Tanaka, Dr. Yamanashi, and Dr. Sakuraba at Center for Research and Education of Wildlife, and caretakers of chimpanzees for their kind cooperation and encouragement. I also appreciate Dr. Kano at Institute for Advanced Study for his cooperation in the experiment. I'm grateful to Ms. Oka, Ms. Yanagi, Ms. Ochi, and Ms. Maeda at Wildlife Research Center for their cooperation in the event.