

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.)

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Affiliation/Position	Primate Research Institute/D2
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1. Country/location of visit
Japan Monkey Center, Inuyama, Japan
2. Research project
Zoo/Museum PWS course
3. Date (departing from/returning to Japan)
2014.10.06 – 2014. 10. 09 (04 days)
4. Main host researcher and affiliation
Mr. Watanuki, Mr. Shintaku, Mr. Akami and staff at the Japan Monkey Center
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.
<p>As a requirement of the PWS curriculum, I went to Japan Monkey Center (JMC) to learn a few things about the role and goals of zoos and museums. I went there three years ago as a visitor, but this was my first time visiting the "backyard" of the facilities.</p> <p>On the first day, I heard a lecture from Prof. Idani about the history of Japanese primatology and the Japan Monkey Center. The Center was founded in 1956, with the objectives to promote research on primates, to exhibit various species of living primates and to offer information about the animals to the public. Currently, the center keeps 1005 individuals of 67 species. According to Prof. Idani, the biggest attractions of the place are the spider monkeys on the skyway and the squirrel monkeys. I believe that this is because in those two places we can freely walk among the animals (squirrel monkeys; <i>Saimiri sciureus</i>) and to observe them climbing in an open sky, as if they were truly free (spider monkeys; <i>Ateles geoffroyi</i>). I liked hearing this because both species live in South America, which is my native continent, and I hope to use the PWS coursework to enhance my ability to work on primates in Brazil after I get my PhD.</p> <p>After the lecture, we walked around the center to see the animals. I could see the two species mentioned above and confirmed my thoughts. It is indeed very nice to feel that the animals are free to walk and to climb, even with some limitations, in contrast with the caged animals. We saw gibbons (<i>Hylobates</i> sp.), rhesus monkeys (<i>Macaca mulatta</i>), pig-tailed monkeys (<i>Macaca nemestrina</i>), langurs (<i>Semnopithecus hector</i>), and Japanese monkeys (<i>Macaca fuscata</i>) in family group cages. We also saw New World monkeys such as marmosets (<i>Callithrix</i> sp.), tamarins (<i>Saguinus</i> sp.), saki monkeys (<i>Pithecia</i> sp.), capuchin monkeys (<i>Cebus</i> sp.) and owl monkeys (<i>Aotus trivigartus</i>) (the latter housed in a nocturnal room, along with tarsiers; <i>Tarsius</i> sp.). Near the African center, we saw a big enclosure of lemurs (<i>Lemur catta</i>), chimpanzees (<i>Pan troglodytes</i>), mandrills (<i>Mandrillus sphinx</i>), one gorilla (<i>Gorilla gorilla</i>), Japanese monkeys and olive baboons (<i>Papio anubis</i>). I felt really bad for the Japanese monkeys. The enclosure seems too small for a group so large. Prof. Idani mentioned in his talk that those monkeys are not under any birth control, so the population has increased a lot. He also mentioned that the group is difficult to observe, and these are problems difficult to solve. I think they should do something about the reproduction in that enclosure. In Texas, all the males were castrated as soon as they showed visible testicles. In the case of JMC, the enclosure is too small and this could be dangerous for the capturer, but they could build a second area adjacent to the area to facilitate the procedure. They could either choose castration or vasectomy, since the purpose of the group is not for reproduction.</p> <p>Another group that I did not like to see was the baboons. Their enclosure was all in concrete, with a few climbing structures, but no trees nor natural vegetation for them to play with. They were constantly looking at us asking for food. I even saw one individual playing with its own feces, probably because it was the only soft thing around the place. A good thing that I observed in the area was a small apparatus in the front of the enclosure to allow humans to interact with the animals by pulling a rope alternatively, so the baboons would receive a small reward. But I still think that the area could be improved with natural resources.</p> <p>One interesting place I had not been before was the Kid’s Zoo. It is a relatively new place, full of domestic animals such as rabbits, turtles, dogs, mice, iguana and lizards. The goal of this area is to show the difference between</p>

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domestic and wild animals, and to give the children the opportunity to touch animals. In my opinion, this was a really good initiative, and I felt like a child playing with those animals (Figure 1).



Figure 1. Sayuri holding an iguana at the Kid's zoo (Photo by Aruga Natsumi).

On the next day, we saw the animals from the keepers' perspective. We went to the African center to clean the cages of the gorilla and the mandrills. I personally don't mind dealing with feces, because part of my research include collecting and processing fecal samples. However, I did not understand why graduate students should be doing this kind of activity. Nobody has yet explained how cleaning cage, or horse stalls, fits in with the mission and goals of the PWS course. I know that PWS emphasizes on works at zoos in the future, but I do not believe that graduate students in the PWS course need to practice cleaning cages if they plan for a zoo career. I think that the PWS course instructors should explain to us the reason for this work in the curriculum. Afterwards, the students had an experience with veterinary procedures and visited the taxidermy museum, but I had to skip these activities due to my commitments to give a seminar at PRI.

On the third day, we heard three lectures. Mr. Takano talked about zoos and museum, the differences between the concepts, the roles and goals of each one. Mr. Shintaku talked about management and essential items in the museums that should be used to facilitate the public understanding. Finally, Mr. Ohashi talked to us about his experience in fieldwork and how this can be linked to zoos. In general, the three talks were very good to give us an overview about the hard work behind the scenes.

In the afternoon, we worked on environmental enrichment. The goal was to motivate the animals to actively search for ways to get food, instead of just feed them as usual. We prepared food treats by filling bamboo tubes with fruits, monkey chow, vegetables and nuts. A relatively large piece of fruit (apple or grapefruit) was used as a lid on the end of the tubes (Figure 2). Additionally, we took branches of trees and inserted small pieces of fruits between the leaves to simulate a natural environment for the animals. We placed those treats in the cages and observed them (Figure 3). We selected the pig-tailed monkey group cage. First, they all got the fruits from the branches, apparently because they were visually more attractive and easier to obtain. After that, the small tubes seemed easier to carry around and to retrieve the food from a small hole in the middle of the tube. The larger tubes were heavy for them, but after a while, one individual could release the apple-lid and get the rest of the food out. The tube containing the grapefruit lid remained untouched after a few trials. I believe the amount of juice from the fruit made it harder to get pulled off by the monkeys. But it was very interesting to see their behavior. I recently went to Tanzania and saw many wild monkeys actively searching for food, which differs completely from the captive animals. I could clearly see how a simple and cheap task as we did in the course could improve so much their lives.

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Figure 2. Preparation of food treats using bamboo tubes, fruits, vegetables and nuts for environmental enrichment. On the right picture, an apple is used as a lid.



Figure 3. Environmental enrichment. Monkeys retrieving food from branches (right top) and from bamboo tubes filled with food (bottom right)

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On the last day, the course was directed to educational programs. Students of the 1st year of Japanese elementary schools visited the center to see the animals and to listen to lectures. The first lecture was around the spider monkey skyway area, to show how they can use their limbs and tail as a grasping tool for climbing. They also learn a little bit about primate morphology and feeding behavior. Afterwards, the students went to the lecture hall where they could see some primates' fossils and taxidermy, and they listened to Mr. Akami talk about a few things about primates, such as their lifestyle, the different number of species, and reproduction. After the talk, we were invited to help Mr. Akami answer questions from the students (Figure 4). We heard lots of funny questions. "How do monkeys lay eggs?", "What do monkeys do after defecating? Do they bury the feces?", "Do monkeys wear make-up", are among the funniest. But they also asked some good questions for elementary students, such as "Do monkeys sweat?" or "Are the monkeys selfish?". It was also the first time I had contact with Japanese students and the first time I participated in educational programs such as this one, so I am glad I had this opportunity.



Figure 4. Sayuri answering a question asked by one Japanese student (Photo by Yayoi Oozawa).

The last lecture was about veterinary routine based on a book chapter. The author of the chapter demonstrated tools used for capturing different sized animals and talked about the procedures he has to do to make sure the animals are in good health. All in an easy and accessible language for young students.

Finally, we learned about the methods used to evaluate public opinion about the facilities, their preferences, and their complaints. To do so, they use a questionnaire for visitors (teachers and students) asking for suggestions to improve the center, and they observe the visitors directly. In the course, we did the second option. Before and during the feeding time, I observed the visitors' behavior around the mandrills and the chimpanzees (Figure 5), respectively. The average time spent watching the mandrills was very short for the visitors who come from the right (7 seconds and 4 seconds) than the visitors coming from the left (243 seconds) side of the cage. Perhaps this is due to the gorilla cage placed on the left side, so when the tourists see the gorilla, they forget about the mandrills. In the other way, they had already seen the gorilla, so they spend more time admiring the colors of the mandrills and watching their group interactions. During the feeding time, I got close to the visitors to hear their impressions about the chimpanzees. Most of them were happy to see an infant, and to interact with the male, which was always near the protection glass staring at the people while eating. The public also likes when the animals are doing some curious activities, such as playing with an empty bag in the enclosure. The average time spent watching them was 164 seconds against 85 seconds watching mandrills before feeding time.

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Figure 5. Sayuri recording visitors' impressions about chimpanzees at Japan Monkey Center (Photo by Rie Akami).

In summary, the course was good for me. Although, as I mentioned before, I did not understand the purpose of cleaning cages, I learned about the history of the center, management and objectives of the zoos, environmental enrichment, and I had a good experience on educational programs and surveys to improve the facilities. It was my first time watching human behavior instead of monkeys, and it was quite fun. The program with the Japanese children was a good challenge for me to practice my language skills in an easy way (beginner), and the lectures were a good practice in advanced and technical Japanese (they were 100% in Japanese - slides and talk). However, I wonder how this course can be useful for foreigners who cannot understand or speak Japanese. The staff told me that their English abilities are very limited, and it is impossible to have a direct relationship with children without speaking Japanese. I hope they find a way to circumvent those problems in the future.

6. Acknowledgements

I would like to thank Mr. Watanuki, Mr. Shintaku, Mr. Akami, Mr. Ohashi and all the staff that guided us during the course. Thanks to Prof. Matsuzawa, Prof. Idani, my supervisors Prof. Huffman and Prof. Bercovitch, and to the other PWS that participated to this course, Ms. Matsumi, Mr. Toda and Ms. Nakazawa.