

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

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Affiliation/Position	Primate Research Institute/D1
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1. Country/location of visit
Inuyama, Japan
2. Research project
Zoo/Museum Course (Japan Monkey Center)
3. Date (departing from/returning to Japan)
2017. 06. 08-10 (3 days)
4. Main host researcher and affiliation
Prof. Ohbuchi, Japan Monkey Center, WRC
5. Progress and results of your research/activity

The PWS Zoo/Museum Course, Summer 2017, started with a lecture by Prof. Idani, Director of the Japan Monkey Center (JMC). In this lecture, Prof. Idani presented the history of animal behavior research in Japan, starting the early studies on social behavior in rabbits, followed by the Sika deer research using “Umashika”. Prof. Idani also explained the current problems faced by Japanese zoos, and specifically, by JMC. In another lecture, students were explained the importance of museum collections, using the case of the Shinko shrew, whose only specimen collected in Kyoto was lost, leaving the scientists wondering if the species was real or just a case of misidentification. The students were also explained the efforts of JMC to increase the zoo collection, which already counts with more than 4300 skeletal specimens. For the practice component of the course, the students were guided through the park, visiting the numerous sections, and later, presented with the opportunity to mount a Japanese macaque skeleton as well as tagging a new specimen for the zoo’s collection.



Fig. 1-4 (left to right). Student feeding a turtle in the Pet Zoo; skeletal specimen (Japanese macaque, male, 23 years old); pelvis of a skeletal specimen showing a nail introduced in a surgery (Longtail macaque); detail of the femural joint of a skeletal specimen (Longtail macaque).

On the second day of the course, we started the day with a talk about Education and Science Communication, followed by a practical exercise aiming to understand the visitants` experience in the zoo. Later on, we also tour

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the zoo with keepers who kindly explained the daily life and routine husbandry in the park. We witnessed how the zoo integrates the children activities (i.e. birthday parties) with the education component (i.e. making environmental enrichment for the animals in a birthday cake shape). We also joined a group of volunteers visitants who record the tool use behavior of Japanese macaques (using sticks to get biscuits which fell outside the enclosure) and we entered the enclosure to feed the same monkeys, in close contact and interaction with the animals.



Fig. 5-7 (left to right). Example of public survey in a Zoo (visitants draws of a penguin before and after the visit); children birthday party making an enrichment `cake`; children providing the squirrel monkeys the birthday cake made of fruits and sweet potato.

In the last day, the students were lectured about Environmental Enrichment and its importance. We learned that JMC has a special set of rules for welfare, a concept that only came to attention in Japan in the early 2000s. Following, we applied this theoretical knowledge by building environmental enrichment feeding devices for siamangs. We used PVC tubes, burlap bags and a ball, and we watched the group of siamangs feeding from these devices. In the afternoon, the first lecture referred to the importance of keeping and maintaining specimen's samples (soft and hard tissues) and the importance of educating the next generation was emphasized. JMC works in close collaboration with local schools (180 schools, in a total of 11000 students). Following this lecture, PWS students visited the veterinary hospital to learn about the history, process and techniques of anesthesia. We observed the anesthesia procedure of a ring-tailed lemur, using a new equipment provided by PWS. The animal was sedated and anesthetized to clean a wound and treat a muscular disorder.

The last lecture of the course targeted the research component of JMC. Since early days, JMC focused on research and had a vital role on Primatology in Japan, through the multiple collaborations with Kyoto University and by the publication of the journal `Primates`. In JMC, students can study from a wide range of topics, including behavior and biomolecular research. JMC also held annual meeting to present the students studies and organizes the Monkey Sunday Salon inviting the general public to learn about Primates and Wildlife Conservation.

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Fig 8-10 (left to right). Enrichment construction (PVC tubes with fruit); implementation in the enclosure; Siamangs feeding from the enrichment implemented.



Fig. 11 and 12 (left to right). Visit to the veterinary hospital, with the explanation about anesthesia; anesthesia procedure in a ringtail lemur for veterinary care and treatment.

I personally took this opportunity to understand the JMC dynamics and daily life. It clearly showed the importance given to both outreach education and scientific research. Keepers, professors and researchers recognized the facilities problems but continue to work to improve the zoo.

6. Others

I wish to express my gratitude to Prof. Idani, Prof. Ohbuchi, Cr. Shintaku, Cr. Akami, Cr. Watanuki, Cr. Takano, DVM Okabe and Prof. Hayakawa for their guidance and patience and to Moe Yanagi for her precious help in translation. I wish to thank my supervisor, Prof. Hayashi, for her support. I'm very thankful to PWS for supporting this course.