## **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.)

	2015. 06. 20
Affiliation/Position	Primate Research Institute/D1
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## **1.** Country/location of visit

Japan Monkey Centre (JMC), Inuyama City, Japan

# 2. Research project

Zoo/Museum course

### 3. Date (departing from/returning to Japan)

2015. 06. 15 - 2015. 06. 17 (3 days)

### 4. Main host researcher and affiliation

Prof. Gen'ichi Idani (Wildlife Research Center), Dr. Yuta Shintaku (Japan Monkey Centre)

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.

**Aim:** To get practical experience in environmental education in the field of primatology/wildlife science as well as to learn to work as a curator, one of the three exit points of the PWS program. This course provides lectures by zoo technicians and practical training as zookeepers (www.wildlife-science.org).

The Zoo/Museum course consisted of the following components:

**Day 1** (06/15): Introductory lecture, centre tour, and animal welfare lecture. **Day 2** (06/16): Keeper practice, veterinary autopsy and environmental enrichment workshop. **Day 3** (06/17): Veterinary observation, tour of museum collection, and specimen workshop.

**Day 1** - We listened to an introductory lecture by Prof. Idani (JMC Director) about the history of Japanese primatology, JMC, and the Primate Research Institute (PRI), followed by a brief tour of JMC. We then listened to a talk by Prof. Matsuzawa, about his efforts to improve primate welfare in Japan through schemes such as GAIN (Great Ape Information Network), SAGA (Support for African/Asian Great Apes) and PWS (Leading Graduate Program in Primatology and Wildlife Science). In addition, Prof. Matsuzawa explained about his recent fundraising efforts to improve welfare at JMC, including websites, social media, and an online donation system. This was followed by discussion time in which we had the opportunity to make our own suggestions.

My suggestion is to show visitors posters outside the enclosures to explain how donations will be used to improve them. Visitors could then choose to donate money into collection boxes below the posters.

**Day 2** - We were placed in different areas of JMC to learn about husbandry practices. I was placed at 'African House' which included species such as Hamadryas baboons and Colobus monkeys. We gained practical husbandry experience including; releasing the primates into their outdoor enclosures in the morning; distributing food evenly to prevent aggressive behaviour, and cleaning the enclosures. After talking to the staff, it was clear that they were trying their best to care for the primates, despite the inadequate enclosures. It seems the two most difficult challenges the staff face regarding improving welfare is a lack of time and money. I hope the decision to close JMC for two days a week will give the keepers and staff more time to implement environmental enrichment ideas.

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The veterinary autopsy was conducted on a Ring-tailed lemur that had died that morning. It was a valuable opportunity to ask questions and learn more about primate anatomy and disease. The lemur was found to have a diseased liver and internal bleeding, and samples were taken for further testing. Autopsies are clearly an important tool for establishing cause of death, and preventing the rapid spread of disease amongst captive animals.

In the environmental enrichment workshop we were asked to think about short and long-term enrichment ideas for the areas we had visited in the morning, and then present our ideas to the group. For the terrestrial species at 'African House' some of the enclosures could be combined to make one larger enclosure. In addition, substrate on the ground (eg. woodchips) would provide a more comfortable environment, and food could be scattered in the substrate to increase foraging time. For the arboreal species, their enclosures could be extended vertically and puzzle feeders attached to branches to increase foraging time. As working to obtain food in the wild takes about 60% of their daily time budget, feeding-based enrichment could help to reduce conspecific aggression, and thus the need to separate and confine individuals to single cages. Items which can be safely destroyed (e.g. cardboard boxes) and other toys (e.g. mirrors) could provide additional opportunities for physical and mental stimulation. For those primates which are currently individually housed on exhibit, the introduction of compatible conspecifics is an important form of social enrichment. Of course, each enrichment idea should be evaluated using e.g. the S.P.I.D.E.R model (Setting goals, Planning, Implementing, Documenting, Evaluating and Readjusting).

**Day 3** - We observed a macaque and Hamadryas baboon receiving veterinary treatment under general anesthetic. The macaque had received a deep hand wound from a bite, which was cleaned and stitched up. The Hamadryas baboon received an implant between the shoulders as a form of birth control. It was particularly interesting to learn about the care of primates under anesthesia, identifying behavioural signs of returning to sensibility, and aspects of post-operative analgesia.

Next was a tour of the specimen collection at JMC. The collection consists of approximately 6,300 specimens (skeletons) which is currently being catalogued in an online database called 'CaPriCo' (Captive Primate Collection). We were also shown other aspects of the collection such as taxidermies and monkey folklore related objects. This was followed by a lecture on the role of museum collections, e.g. as a research resource, a tool for education, to provide materials for exhibition, and as an inventory of local fauna and flora. The last part of the course featured a workshop in which we separated a primate skeleton into its constituent bone groups, labelled the bones, and tried to estimate the age of the specimen from the vertebra structure and teeth condition.

**Overall impressions:** As a graduate in animal behaviour and welfare, my main interest was in the zoo and environmental enrichment aspects of the course. I felt there was a mixture of both good exhibits (e.g. Big Loop, Monkey Skyway and Squirrel Monkey Land) which promoted natural behaviours, and exhibits which clearly need improvement (e.g. African House, Asian House and Baboon Castle). I was particularly impressed that the staff at JMC were prepared to show us both the positive and negative aspects of the centre, and openly acknowledge the need for welfare improvements. I am optimistic that this attitude, recent interest in environmental enrichment, and collaboration with members of the Primate Research Institute, will lead to a significant improvement in the welfare of the primates at JMC in the future.

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## 6. Others



Visitor/Education Centre



Autopsy on a diseased Ring-tailed lemur



Stitching up a macaque bite wound at the on-site hospital.



Implanting a birth control device in a Hamadryas baboon.



Big Loop and Monkey Skyway (Promoting natural behaviours)



Bamboo puzzle feeders for capuchin monkeys (Environmental enrichment)

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Enclosures with limited space and environmental enrichment (Exhibit)



Primates housed in single cages due to aggressiveness or illness/injury (Non-exhibit)



Primate specimen collection (Boxes of complete skeletons)



Organised specimen (Bones grouped together and labelled)