**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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| | 15 Oct 2018 |
| **Affiliation/Positionn** | Primate Research Institute/M2 |
| **Name** | Nelson Broche |

**1. Country/location of visit**

Inuyama, Aichi, Japan

**2. Research project**

Zoo/Museum Course

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

7 - 9 Jul 2018 (3 days)

**4. Main host researcher and affiliation**

Professor Gen'ichi Idani (Zoo Director); Dr. Yuta Shintaku (Curator), Japan Monkey Centre, Inuyama

**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.

Schedule
7 Jul = introduction lectures; discectomy; morphology practical application
8 Jul = backyard procedures, feeding & cleaning; visitor management
9 Jul = veterinary care; concluding lecture

The Zoo/Museum Course falls within the required course work for PWS students. The goal of this course is to gain practical knowledge on wildlife science and to learn about the many moving parts of a zoo/museum. In total five students joined the course and we spent three days at Japan Monkey Centre receiving lectures, performing practical applications, and learning about general concepts of zoo/museum management. Dr. Shintaku led and facilitated the course through lectures, touring JMC, and introducing staff.

On the morning of our first day (July 7th), Dr. Idani, zoo director, introduced the history of Japanese primatology and its early connection to JMC. In 1956, JMC was established by Meitetsu (an incorporated railway company operating in the Aichi and Gifu area) as a tourist attraction in Inuyama. JMC worked closely with early primatologists in Japan such as Dr. Kinji Imanishi and Dr. Junichiro Itani by funding expeditions to Africa beginning in 1958. Next to JMC, Kyoto University Primate Research Institute was established in 1967 by the same group of early primatologists along with the help of JMC. Since 2014, JMC became managed by Kyoto University professors, who direct a specialized zoo that houses over 60+ species of primates and manage its museum which runs two primatology publications, the scientific journal "Primates" and "Monkey" aimed at the general public.

In the afternoon our group was toured through the morphology storage area where a large variety of specimens are preserved for future and ongoing studies. Dr. Shintaku then led a dissection of a common spiny mouse (*Acomys cahirinus*) specimen where he showed and explained basic techniques for taxidermic preparation. We ended the afternoon by each person of the group working with an individual complete set of skeletal remains of a Japanese macaque. We first were instructed to place the skeletal remains in the correct anatomical order and then encouraged to re-arrange bones when misplaced. After the activity, we grouped bones in categories, placed each bone category in plastic storage bags, and then labeled the box with the appropriate information which then completed the final step for long term storage.

On the morning of July 8th, we separated into three teams. Shenwen Xu along with myself specifically went into the "backyard" of the ring-tailed lemurs (*Lemur catta*) where we were able to wash, *first-hand,* the housing area and then learn about daily feeding procedures in the kitchen area. There were a large variety of fruits and vegetables in the kitchen and I learned that a substantial portion of the available food there was received by donations. We also practiced identifying individual lemurs of the exhibition. In the afternoon, Ms. Rie Akami, curator at JMC, presented information on the importance of visitor management where points such as types of exhibition displays, visitor interactions with

the animals, and the ethics of captivity were covered. We were given the opportunity to test a small project of our own where we were challenged to choose an exhibition area of the zoo, focus on a single species, and then monitor guests by collecting both quantitative and qualitative information such as time and interactions with the target species. In my own case, I chose to monitor the pygmy marmoset (*Cebuella pygamaea*), which was located in the South American primate exhibition, a building of its own. My most immediate reaction to entering this building was the strong odor naturally emitted by all of the marmoset species present in the exhibition area. Ms. Akami explained that this smell is important for these species, which use them as a means of communication. After collecting data on visitor time at our target species' exhibitions, we presented what we found and discussed the results together. Within about a 20-minute period, I recorded 17 visitors in the South American exhibition building. I found the average time in the building was approximately 163 seconds and that these visitors spent on average approximately 58 seconds at the pygmy marmoset exhibition. Visitors commented on the pygmy marmoset's small size, its tail length, the color patterns, and that it was "cute". Gathering such information could be useful for understanding which species are popular among visitors but also, I feel this could be a useful mechanism for learning about ways to improve the exhibition.

On our last day of the course (July 9th), we were able to observe a surgical procedure for managing reproduction in Japanese macaques (*Macaca fuscata*). Veterinary staff implanted a hormone contraceptive located in the center back, slightly above the shoulder area, and inserted below the skin and into fatty tissue of one female monkey. After some discussion we received concluding remarks from Dr. Shintaku to finalize the course.

Distinguishing between individual ring-tailed lemurs can be difficult, so staff rely on slight differences of facial color variation and even hues of eye color.

**6. Others**

I would like to thank Dr. Yuta Shintaku who kindly led this course and was very helpful with all questions. Additionally, all JMC staff were also very accommodating in explaining and showing their work – thank you.