

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.)

2014. 06, 20	
Affiliation/Position	Primate Research Institute/D1
Name	Rafaela Sayuri Cicalise Takeshita

1. Country/location of visit
Jigokudani, Nagano prefecture, Japan
2. Research project
Hormonal profile of free-ranging Japanese macaques: effects of environment, social behavior and reproductive
3. Date (departing from/returning to Japan)
2014.04.02 – 2014. 06. 10 (69 days)
4. Main host researcher and affiliation
Mr. Haruo Takehushi, Director of Jigokudani Monkey Park
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>I conducted a study at Jigokudani Monkey Park as part of my PhD research. Everyday I went to the park to collect behavioral observations and fecal samples from 18 adult Japanese monkeys (12 females and 6 males). This research intends to achieve the following aims: (1) Investigate hormonal profile of free-ranging Japanese macaques and changes with biological (age, gender, and reproductive state), environmental (season, climate) and social factors (behavior, dominance hierarchy), and (2) Compare the hormonal profile of Japanese macaques in their natural habitat (Jigokudani, Japan) with a group of free-ranging Japanese macaques living in a large outdoor mesquite bush, desert habitat (Texas, USA - data collection in July), as well as with individuals living in captivity (PRI - previous study).</p> <p>Through this visit, I was able to improve my fieldwork skills, Japanese language (very important!) and Japanese culture. I also developed a better image of wild Japanese monkeys. In the past, I have worked with captive monkeys at PRI, and I did notice that they are somehow different. Jigokudani group is larger (about 160 individuals), and it is interesting to see how they move in an open environment, and how they seem to have a fixed spot according to the hierarchy position. The most famous feature of Jigokudani monkeys that distinguish them from the other groups is the fact that they bath at the hot spring - built exclusively for them at the park (Figure 1). It is the only place where I could see monkeys diving in order to get food (Figure 2). But this is not the only attraction of the park. Some monkeys are quite clever and seem to have developed cognitive abilities, such as using a stick to retrieve food from a plastic tube (Figure 2-A) or picking up beans thrown by the staff in the air (Figure 2-B). However, in my opinion, the most remarkable characteristic of these animals is that they are extraordinarily habituated to humans. They got very close to me so many times while I was observing them (Figure 3).</p> <p>In addition, during this field season I was able to see a lot of newborn infants. In total, 33 infants were born this year (Figure 4). Like their mothers, they are not afraid of humans at all. Unfortunately, one of them died, and the interesting fact is that the mother kept carrying it around for almost 20 days (Figure 5).</p> <p>The conditions of the field were very good. The hosts at the Ryokan I stayed at were very kind and supportive, and did everything they could to help me to continue my study until the end. I really recommend Shimaya Ryokan if you ever visit the place. The staff of the park were very helpful, provided useful information about the monkeys, and thanks to them, I successfully collected approximately 230 hours of behavioral observation and 300 fecal samples, which have been already sent to PRI and stored at -20°C until further analysis.</p> <p>This was the first of two study periods at Jigokudani. I am planning to return to the field during fall/winter to collect more data and then be able to look at seasonal changes. All the data will be processed and analyzed in the beginning of 2015. The results obtained with this study will provide us information about the biology of Japanese macaques, and they can be useful to improve the management of captive animals and to monitor the environmental conditions in free-ranging monkeys.</p>

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6. Others



Figure 1. Japanese monkeys bathing at the hot spring

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Figure 2. Japanese monkey diving to get food at the hot spring



Figure 3. (A) Adult female Japanese monkey using a stick to retrieve food from a plastic tube; (B) Adult female Japanese monkey picking up beans in the air thrown by the staff

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Figure 4. Female Japanese monkey approached me while I was collecting data. Tempting, but I did not touch her. Could not resist taking a picture though.

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Figure 5. Two babies (approximately 1 month-old) playing



Figure 6. Adult female Japanese monkey with her dead baby

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