

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/ M1
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1. Country/location of visit
Japan/ Koshima Island in Miyazaki prefecture, Japan
2. Research project
Koshima Field Science Course, Individual preference approaches to adult male of <i>Macaca fuscata</i>
3. Date (departing from/returning to Japan)
2017.04.23 – 2017. 04. 29 (7 days)
4. Main host researcher and affiliation
Dr. Tanaka, Dr. Huffman (Primate Research Institute), Mr. Suzumura (Wildlife Research 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>During Koshima Field Science Course, I conducted the study of <i>Macaca fuscata</i> on Koshima Island. I mainly focused on individual preference approaches to adult male. In addition, I got the opportunity to visit Cape Toi to see the wild horses.</p> <p>On the first day, 23rd of April, we arrived at Koshima station. A lecture given by Mr. Suzumura helped us to understand the history of Koshima Island and have a general image of the target troop on the Island. Koshima is the study place where Japanese primatology originated. On 1948, Mr. Imanishi Kinji visited Koshima for observing horse but Japanese macaque in Koshima Island attracted his attention as well. Subsequently, provisioning was succeeded in 1952, culture of washing sweet potato was found in 1953 and weighting monkeys has begun since 1970. Until now, there is 110 monkeys on the Island.</p> <p>On 24th of April, since only few typhoons landed in Koshima last year, the coastline is lower than before resulting in connection between Koshima Island and mainland, we climbed palisades to Koshima Island instead of by ship. In the morning, I observed the feeding behavior of macaques and did individual identification of adult males. At the beginning of feeding, all of the monkeys prefer to use their mouth to eat seeds. As time went by, they picked up the seed using their hands, especially, some of them grasped seed with soil, and washed it near to water. Apart from feeding behavior, the social structure of the troop was attractive for me as well. As told by Mr. Suzumura, Koshima is isolated by sea and some adult males stay in the natal group. Interestingly, inbreeding was not found in genetic analysis and behavior observation. I decided to focus on adult male and studied on individual preference approaches to adult male in <i>Macaca fuscata</i> in Koshima Island.</p> <p>On 25th and 27th of April, I conducted my study on individual preference approaches to adult male in Japanese macaque on Koshima Island. As previous research reported, Japanese macaque is consisted of multi-males and multi-females, to survive in group living society, it is essential to improve its own fitness by passing on its genes. In matrilineal society, adult females choose to approach to high rank male and female to get support and food resource. In this case, high rank adult male has more chances to mate with female and has more offspring comparing to low rank. Based on what I mentioned above, my hypothesis is more adult females and infants approaches to alpha male.</p> <p>Using scanning sampling method, I collected valid data for 2 hours 50 minutes. My study target was 3 adult males, alpha male-Kei, beta male-Shika and the third male-Okapi. I scanned 3 adult males every 10 minutes to mark down how many individuals surround to them within 2 meters, individual was categorized into 3 age group, adult female, juvenile and infant, separately.</p> <p>Through the observation, I observed more adult females approached to alpha male than beta male and the third male.</p>

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Beta male was aggressive to human but not to monkeys. And it always stayed along. The third male frequently stayed and groomed with an adult female and an infant. Judging from the results of the analysis, more adult females have tendency to approach to alpha male in coincidence with my hypothesis. This result did not directly support my hypothesis, but there were still some interesting findings. More infant and juvenile preferred to approach to the third male. What I concluded was individual has different personality that the same female and infant stayed together with the third male leading to repeat count. It is better to identify not only adult male but adult female next time, since during observation, I cannot exclude the repeat count.

On 26th of April, since it was raining, I visited Cape Toi to see wild horses there rather than went to Koshima. The way we drove to visitor center of Cape Toi, I saw a group of horses sleep in their standing position, it looked peaceful. Subsequently, the worker guided the way for us and explained the history and recent development of Cape Toi. Originally, Cape Toi aimed to provide horses for military. After war, there was not demand of horses, so people left horse along without management. The quantity was reduced from 1000 to 20 sharply. Nowadays, horses in Cape Toi are living and dying naturally. keepers will not interfere ecology of horses even individual is dead near to the road. It is impressive for me to know the history of Cape Toi and how it manages the density of horse.

Besides the activities I mention above, we cooked different types of ethnic foods, played ukulele and went fishing as well. It was memorable to stay 7 days in Koshima station. Though, we cannot collect much data to support our study topic. Overall, I greatly enjoyed the field course and had an impressive experience with Dr. Tanaka, Dr. Huffman, Mr. Suzumura and all students. During this field course, we learnt to unite the team and help each other, friendship and trust were gradually cultured.

Finally, I would like to express my gratitude to all organizing committee, staffs and researchers for their support. Thank Dr. Tanaka, Dr. Huffman and Mr. Suzumura for great help in our research and daily life. Thank all students for their help and support during the course. I also want to express my gratitude to PWS for organization and financial support.



Figure 1. Grooming of Japanese macaque



Figure 2. Horses in Cape Toi



Figure 3. Rotting turtle on Koshima beach



Figure 4. Climbing palisades to back to Koshima station

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Figure 5. Group photo in the front of Koshima station

6. Others