

**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.)

	2017. 5, 11
<b>Affiliation/Position</b>	Primate Research Institute/M1
<b>Name</b>	Hiroya Takiyama

<b>1. Country/location of visit</b>
Koshima Kushima-shi, Miyazaki
<b>2. Research project</b>
Ecology Field Training
<b>3. Date (departing from/returning to Japan)</b>
2017. 4. 22 – 2017. 4. 30 (9 days)
<b>4. Main host researcher and affiliation</b>
Dr. Huffman and Dr. Tanaka (Primate Research Institute), Mr. Suzumura(Wildlife Research Center)
<b>5. Progress and results of your research/activity</b> (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>Koshima is an island inhabited by about one hundred Japanese macaques. Koshima is the place where Japanese primatology was started by Dr. Imanishi.</p> <p>I attended Ecology Field Training and visited Koshima. The schedule was as follows:          April 22<sup>nd</sup>: We took the ferry to Miyazaki; April 23<sup>rd</sup>: We arrived at Koshima Field Station and received a lecture;          April 24<sup>th</sup>: Preliminary observation on Koshima; April 25<sup>th</sup>: Data sampling on Koshima; April 26<sup>th</sup> Observation of semi-wild horses at Cape Toi; Aril 27<sup>th</sup>; Data sampling on Koshima and data analysis; April 28<sup>th</sup> Presentation; April 29<sup>th</sup>; We took the ferry back to Kobe; April 30<sup>th</sup>; We arrived back in Inuyama</p> <p>• <b>Observation at Koshima</b></p> <p>The main purpose of this training course was to better understand monkeys. First, I observed monkeys using a focal sampling method and decided on the topic I would study on Koshima. On 25<sup>th</sup> and 27<sup>th</sup>, I carried out a field experiment investigating theory of mind in Japanese macaques.</p> <p>Theory of mind is the ability to attribute mental states to others and was proposed by David Premack. We can study whether animals have theory of mind or not by conducting a false-belief test.</p> <p>In this study, I focused on the behavior in Japanese macaque that making eye contact with others can result in aggression. I analyzed whether the presence of other individuals affected behavior after eye contact with the experimenter. When subject A threatened the experimenter, if there is another macaque, subject B, may have the false belief that A is threatening B, rather than the experimenter. So, my reasoning was that if macaques have theory of mind, A would hesitate to threaten or demand help from others.</p> <p>In this experiment, when another monkey was present, the rate of active response was lower than that of the control condition (no other monkey present). This result may represent behavioral evidence of theory of mind in Japanese macaques. However, they may have not been able to threaten experimenter because B was in their way. So, I have to improve the method. For example, using an object in B’s place and comparing the new results with those from the current experiment. I had to decide on my method soon after arrival and we had only 4 hours to collect data. It was regrettable that the method was not ideal. However, having to decide what I would research and conduct it in a short period was very useful experience for me.</p> <p>• <b>Cape Toi</b></p> <p>26<sup>th</sup> April, we were not able to go to Koshima Island due to bad weather, therefore we went to Cape Toi to observe semi-wild horses. Ms. Kaizaki, the visitor center staff, acted as our guide. She said horses were not observed every day. However, we were fortunate to observe them, including new born horse, a foal.</p>

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Field observation on Koshima



Japanese macaque threat-face



A foal



We found the dead body of a loggerhead turtle

**6. Others**

This course was supported by PWS. I am very grateful to Sakai-san and Akiyama-san of PWS. I would also like to thank Huffman-sensei, Tanaka-sensei, Suzumura-san and all the other students.