

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. 10, 31
Affiliation/Position	Primate Research Institute/Internship
Name	Yan Xiaochan

1. Country/location of visit
Japan, Yakushima
2. Research project
Relation between age/body size and fecal pellet size in Sika deer(<i>Cervus nippon yakushimae</i>) of Yakushima
3. Date (departing from/returning to Japan)
2015. 10. 18 – 2015. 10. 24 (7days)
4. Main host researcher and affiliation
Dr. Hanya, Dr. Yumoto, Associate Professor at Primate Research Institute, Kyoto University
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 Yakushima Field Science Course, I studied on the relationship between age/body size and fecal pellet size in Sika deers (<i>Cervus nippon yakushimae</i>) of Yakushima, which using a non-invasive method to collection DNA samples. With a rapid population expansion of deer in Yakushima, more and more damage to local vegetation which maybe raise to a serious ecological problem in the future. In order to control the development of deer, it is vital to understand sex and age structure among deers..We aimed to find relationship between age/body size and fecal pellet size so that we can get further message about sex and age structure in Sika deer.</p> <p>From 19th to 21th, we were supposed to collect feces samples divided by three teams, work from 07:45 to 15:00. First, we followed deer and waited for defecation. It is very hard to follow a male or juvenile, for they are more sensitive to human. Second, video-taped the defecating deer and estimate the length from shoulder to hoof. Third, swabbed of feces’ surface for DNA analysis, collect all the fecal pellets when observing defecation. Finally, when we backed to dormitory, we measured longer and shorter axis for all pellets and calculated the deer’s body size by video analysis and recorded the data in ours computer. In 22th, we discussed the result and prepared the presentation which held on 23th. During analyzing, it took us a long time to deal with origin data. At the first time, we were confused which method should we use to analyze the origin data. Focusing on statistical analysis, we found there was significant relationship between adults and juveniles for both longer and shorter axis, which suggested that pellet size is decided by age. However, there is no correlation between body size and pellet size. For collecting samples and statistical analysis, we were confronted with some limitations like inaccurate method of body size estimation.</p> <p>As far as I’m concerned, according Yakushima Field Science Course, I got the opportunity to observe wild Japanese macaque and deer, it is very different with Rhesus macaque. What surprised me most is the specific relationship between Japanese macaques and deer. It is said that a normal culture between Japanese macaque and deer. What’s more, I got the basic knowledge of non-invasive method, field work and statistical analysis</p>

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which I will use in my recent research. According cooperation, I realized how powerful it is when we were confronted with problems and obstacles. Through this experience, I have developed a clear vision on how to cope with students came from different country, teachers, local people and wild animals, which will be of great help for me to understand the importance of cooperation, respect and diligence. To sum up, I spent a memorable experience with this course and learnt basic methods of field work which I need to learn for my recent research.



Fig.1 Two Japanese macaques



Fig.2 An adult male, Sika deer



Fig.3 An adult male



Fig.4 An adult male, Sika deer

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Fig.5 Group photo

6. Others

I would like to express my gratitude to Prof. Hanya Goro and Prof. Yumoto for their guidance. I also want to express my gratitude to PWS for supporting this field course.