

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. 27	
Affiliation/Position	Wildlife Research Center/D1
Name	Miho Saito

1. Country/location of visit
Yakushima, Kagoshima pre
2. Research project
Yakushima field course (deer team)
3. Date (departing from/returning to Japan)
2015. 10. 18 – 2015. 10. 24 (7days)
4. Main host researcher and affiliation
Pro. Yumoto and Pro. Hanya
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 this field course, I belonged to deer team. While following deer, once we confirmed that he/she defecates, we swabbed the surface of pellets for DNA extraction for later genome course and collected whole pellets for hormone analysis. Additionally, to understand if there is any relationship between fecal size and individual height, we recorded focal individual’s sight with video.</p> <p><u>1st day:</u> We visited Seibu trail and fortunately could observe one deer. As I heard from other person that Yaku deer is smaller than the other subspecies, it was exactly smaller than what I have expected. A landscape of Yakushima is not flat as my research field and very steep. I felt it might be difficult to follow Japanese macaque which is much smaller than the giraffe in such a hard environment and will take a time to get used to this environment.</p> <p><u>2nd day</u> In the morning, to know the environment of Yakushima, we, all deer team member, walked Hanyama and reached to the ocean side. It was hard to walk smoothly because the way has many uphill and downhill, huge rocks on the way. We encountered deer group on the way back from the ocean side to the road. There were very big differences to the human habituation, some of them really get used to human and don’t care about us even we were getting close to several meter from them. On the other hand, some of them were afraid of us and made an alarm call even we were more than 50 m away from them. I was wondering what kinds of experiences caused such differences. I want to confirm the place for hunting and how often they do, maybe it will affect their reaction to the human. It was easy to know when they defecates because they raise up its white tail. On the other hand, it was difficult to find out where the feces were because of its small size and easy to be hidden under the fallen leaves. We found mother and fawn pair, however, they moved so fast even more than adult group. I was thinking that mother is much more pay attention to “unusual” thing to protect her calf.</p> <p><u>3rd day</u> Adults were often found as hidden in bush and he/she suddenly stood up and run away until we came close without noticed him/her. They really hidden well in bush without making any movement. Giraffes calf is known as remain hidden in bush when they are young, so I thought maybe deer also belongs to the same “hider” group. As like giraffe, I could see when they do rumination (when the food is coming up through its throat) if I see their neck carefully. But I don’t think they do it continuously more than 30 min with motionless. Giraffe often concentrate only on rumination more than 30 min during noon time and stay under the shadow of a big tree. I feel like giraffe which live such a severe environment, dry and hot, rumination is the way to spend the difficult time without consume much energy instead of browse or move. On the other hand, Yakushima is not a severe environment, everywhere they can find a shadow and the climate is not severe like African savanna. Therefore, maybe deer do not need to secure constant time for rumination at the same time every day.</p> <p><u>4th day</u></p>

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.)

We went mountain without tutor, so firstly we intended to go to a flat slope area, however, we reached to the ocean side and had many uphill and downhill. When we came back to the road, there were monkey groups and also deer groups. Monkey were feeding on a tree and deer were feeding a fallen fruits or leaves from above trees after monkey have passed. We observed not only male-female mix group but also bachelor group. One of a male from bachelor group have only one horn. I was wondering if that was happened because of a fight among males, the fight might be aggressive more than what I have expected.

5th and last day

On the 5th day, we analyzed data and prepare for the presentation on the last day. Our result showed the following two things. 1. There were no significant differences between body size and diameter/length of feces. 2. The size of feces depended on the age, therefore, we can assume deer age from feces' size. As for an improvement, we can say 1. Increase the accuracy of body size estimate 2. Increase the accuracy of majoring feces size 3. Better to set more age-sex categories, not only juvenile and adult.



Figure 1. Adult male



Figure 2. Juvenile



Figure 3. Some of deer doesn't afraid of human.

6. Others

I would like to express my sincere gratitude to the PWS program for supporting this trip. Many thanks to Prof. Hanya, Pro. Yumoto and Mr. Kurihara and Ms. Fujieda for supporting us during field course.