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.)

	2019. 06, 07
Affiliation/Position	National Institute of Amazonian Research/ PhD candidate
Name	Sannie Muniz Brum

1. **Country/location of visit**

Japan, Yakushima

2. **Research project**

Yakushima field course (Experiments with flyes that use japanese monkeys and deers feces)

3. **Date (departing from/returning to Japan)**

2019. 05. 25 – 2019. 05. 31 (7 days)

4. Main host researcher and affiliation

Dr. Goro Hanya, Professor at Primatology and Wildlife Science

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.

I am a student of INPA and I participated in that Yakushima field course within the scope of the agreement that we have with the Wildlife Research Center, at the invitation by Professor Koshima.

During this visit, I conducted research on the flyes that use macaques and deers feces, with the aim to help with DNA samples utilizing those flyes.

I used this opportunity to achieve experience in field activities with terrestrial animals, something very different from my area of work since I work with river dolphins. Thus, I was able to observe the peculiarities of this area of research as well as observe how students collect information.

As I work with estimates of population parameters, I usually try to collect the information as naturally as possible and with minimal interference (although I can later separate the observation process), while Japanese students were more concerned and interested in collecting information through an experimental process, controlling the variables.

It was also interesting to participate in the process of statistical analysis and discussion. In Brazil, we focused intensely on elaborating questions and working on the whole collection and analysis of solving this, but the Japanese students also did not seem to follow this logic. Although we had well-established questions before the protocol was defined, for the analyzes they focused on describe all the results, no longer answering the questions, but which were answered in any way.

I led the discussion of statistical analysis, returning the questions and explaining the kind of graph we should do. We study the graphs and define the analyzes, basically comparisons of means and correlations, a step-by-step statistical analysis, not totally adequate for our data, but that was adequate for everyone to have the same statistical background. I believe, however, that a more correct way to analyze this kind of data is through GLMs, so Breane and I do this statistic separately, after participating and assisting in the analysis of data according to the preference of the majority. The results obtained are slightly different, and we observed that both the weight of the sample and the locality influence the count of flies. We do not use this analysis but the form defined by the majority.

Those was my main activities by day:
05/25 - Travel day, arrived Yakushima end afternoon.
05/26 - 8:00 > we left for field; 8:26 > we founded our first group of about 30 monkeys - feces were collected and two fly species identified; 9:11 > we founded deers and collected samples, with one fly specie identified; 10:30 > back field station to define field protocol; 14:00 > back to field; 14:20 > following deers group; 15:09 > deer#1 sample collected; 15:48 > deer#2 sample collected; 17:00 > back to field station and weighing the samples; 19:00 > discussion to change

protocol and majority wants to include a control sample (a blank paper) and discharge all samples collected in this day - I was against.

05/27 - 8:00 > we left for field - My group was Cashi, He, Alfyan and Sarath; 8:55 > following monkey group; 10:11 > Monkey#1 sample collected for fly and DNA; 10:40 > Monkey#2 sample collected for fly and DNA; 11:50 > Monkey#3 sample collected for fly; 13:38 > following monkey group; 14:12 > Monkey#4 sample collected for fly and DNA; 15:25 > following monkey group; 16:10 > Monkey#5 sample collected for fly and DNA; 17:00 > back to field station and weighing the samples.

05/28 - No field sampling because of rain. Day to input data and certificate about fly identification.

05/29 - 8:00 > we left for field - My group was Cashi, He, Breanne and Toyama; 8:30 > following deer group - no feces; 9:45 > following deer group - no feces; 10:00 > following monkey group - no feces; 11:12 > following deer group; 11:24 > Deer#3 sample collected; 12:00 > back to field station and weighing the samples; 13:30 > data analysis discussion; 20:00 > looking for sea turtles - 3 loggerhead turtle observed.

05/30 - 8:00 > data analysis, data discussion and presentation preparation - I led the stats group and we prepared graphs and analysis for the presentation; 16:00 > all teams presentations.

05/31 - Returning day, after an amazing hiking around Yakusugi Land.

Through this experience, I was able to participate in the application of field methods that were very different from my study area. I was also able to apply my statistical knowledge to answer practical research questions and had the opportunity to know a unique place with a high heterogeneity of habitats and abundance of habituated species. It was also an interesting opportunity to get to know Japanese daily cuisine and its routine ways.

Me and all my colleagues are now working on the scientific reports and presentations arising from our activities in Yakushima.

*Please have your mentor check your report before submitting it to [report@wildlife-science.org].

6. Others