# 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	University of Science, Malaysia/PhD Student
Name	Muhammad Afif bin Yusof

## 1. Country/location of visit

Japan, Yakushima

## 2. Research project

Yakushima Field Course

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

2019. 5. 25 – 2019. 5. 31 (7 days)

#### 4. Main host researcher and affiliation

Dr. Goro Hanya, 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.

The course was exciting and kind a new experience to me in Yakushima Island. During this course, we conducted research on flies which landed on faeces of Yakushima's monkeys and sika deers. We wanted to know if there is any specific preferences of flies species landed on both faeces and if there is any flies that only found on one of the faeces either monkey or deer.

#### First day, arrival at Yakushima Island (25 May 2019)

The first day when we arrived at the research station, we have been informed about the natural disaster contingency plan especially for earthquake and tsunami by Hanya-sensei. We were told to run and hike the hill behind of the station. We also have been told about the rules and routines in the station that we need to do every day. During the evening, each of the lecturers of each group has given us a brief explanation about the next day's activity about faecal sampling and so on. We have received a compass, maps and bite and sting kit afterwards.

## Second day, Fly group (26 May 2019)

On the second day, we were guided by Hanya-sensei and his assistants on how to follow the target animals until they defecated practically in the field. Then, we have been demonstrated on how to collect the faeces and start the observation of the flies landed on the faeces collected. After that, we returned to the station to have lunch and continued a dicussion on how we should carry out our faeces project properly. Later in that evening, the protocol for the project was finalized and some part of the observation of flies method were revised.

#### Third-Fifth day, Fly group (27-29 May 2019)

We were divided into 2 smaller groups and dispersed out to different areas to maximize the observation and sampling data. The observation was carried out starting from 8am till afternoon. Beside observing the flies on the faeces, initially the monkey's faeces samples were collected by using a swab for DNA analysis and other molecular works in the laboratory. On the fourth day, samples collection and observation couldn't be done as the weather was raining throughout the day. Therefore, the preliminary results from the previous day were gathered and the best analysis were discussed among the group members. We also learned some basic R-Statistic by Hanya-sensei later in the evening. On the fifth day evening, the discussions were made and the preparation of the presentation was done after dinner. The tasks were divided among us and I decided to do the methodology part and also have made one short video of our sampling during the collection and observation of flies on the faeces. The video can be watched via this link: https://drive.google.com/open?id=10M2giz6ABFQFFZWtQvajPw45j49e-61A

#### Sixth day, Presentation day (30 May 2019)

The preparation of the presentation and also the video were finalized. The presentation was held at 3pm but some of us still struggled with the data and the slides. Later in the evening we had barbeque and party as we finished the Yakushima course.

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#### Seventh day, Departure from Yakushima Island (31 May 2019)

We went to Yakusugi Land before our departure back to Kyoto University. It was very interesting place to visit once you come to Yakushima. The place was surrounded by old trees of Japanese cedar that can live for more than 500 years. The wood contains a lot of resin due to Yakushima's high rainfall and high humidity making it resistant to rotting.

By the end of this course, I have gained knowledge and new experience about non-invasive sampling method in which the collection of fecal sample in the field without need to take live organs or hairs for DNA sequencing and analysis. I also learned various species of flies that happen to favour faeces more than foods. Moreover, I've learned Japanese culture that some of them not actually common for my people in my country during my stay in the station for the whole week.



Fig 1. Yakushima's Monkey



Fig 2. Sika Deer



Fig 3. During data presentation



Fig. 4. Yakusugi tree

## 6. Others

I would like express my highest gratitude to Dr. Goro Hanya, Dr Hirokazu Toju, Dr Akiko Sawada, Mr Honda, Mr He, Mr Tabuse, Ms Lee, Ms Hanzawa and others, for their endless effort, time, knowledge sharing and guidance throughout this course. This course was only made possible with financial support from PWS and WRC, Kyoto University. Thank you.

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