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.)

	2016. 5, 31
Affiliation/Position	Division of Biological Sciences,Graduate School of Science M1
Name	Mabuchi Ryoma

1. Country/location of visit

Yakushima, Japan

2. Research project

Study on digestibility of gut microbe in Japanese macaques

3. Date (departing from/returning to Japan)

2016.5.21~2016.5.27

4. Main host researcher and affiliation

PWS,PRI

5. Progress and results of your research/activity (You can attach extra pages if needed)

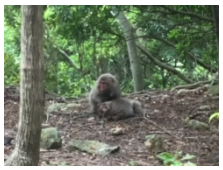
Please insert one or more pictures (to be publicly released). Below each picture, please provide a brief description.

A subspecies of Japanese macaques (*Macaca fuscata yakui*) are living in Yakushima island and its feeding habits vary with altitude.
In highland, they mainly eat leaves or other fiber rich foods which are difficult to digest while macaques in lowland are able to eat fruit or other foods to digest easily.
So we hypothesized that digestibility of gut microbes in macaques are different among altitudes where they live.

We collected samples of feces from macaques in highland and lowland.
And then we measured how much gut microbes produce gas during their fermentation.
We also measured pH change before and after fermentation.

We found that gas product was significantly larger in gut microbes in highland macaques than those in lowland.
Change of pH was also significantly larger in highland samples than lowland ones.
It means gut microbes in highland can digest leaves or other foods that macaques eat more effectively.

Our hypothesis is suggestively correct.
We got a great result through this field work in Yakushima.



Japanese macaques in Yakushima.They spend a lot of time grooming each other.