Research Activity Report
Supported by "Leading Graduate Program in Primatology and Wildlife Science"

	2019. 6. 10
Affiliation/Position	Primate Research Institute / M1
Name	Sotaro Sugiayama

1. Country/location of visit

Japan, Yakushima

2. Research project

Study on specificities & preferences in plant-fungus associations

3. Date (departing from/returning to Japan)

2019. 5. 25 – 2019. 5. 30 (7 days)

4. Main host researcher and affiliation

Hirokazu TOJU, Ph.D. Associate Professor, Center for Ecological Research, Kyoto University

5. Progress and results of your research/activity

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

During this visit, we conducted research on specificities & preferences in plant-fungus associations.
Plants were collected at Kurio, and Nagata. 4 pieces of root from each individual left for 2 days to allow organisms to grow in agarose plates. Then we conducted species identification of fungi and bacteria and data analysis by using R language.

Figure1. Plant which I used in this study, *Bidens pilosa var.minor*

As a result of analysis, 9 species of bacteria, 20 species of fungi, and 2 species of unknown species (species that do not seem to belong to either) were identified.
The bar graphs show that there is a big difference in the types of bacteria and fungi that coexist in each plant species、and the bacteria classified as bac_1 have a symbiotic relationship with the largest number of plant species.

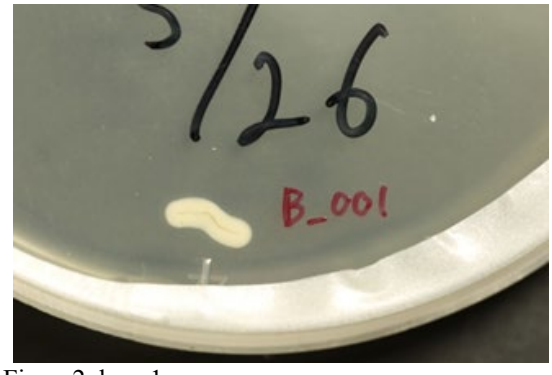

Figure2. bac_1

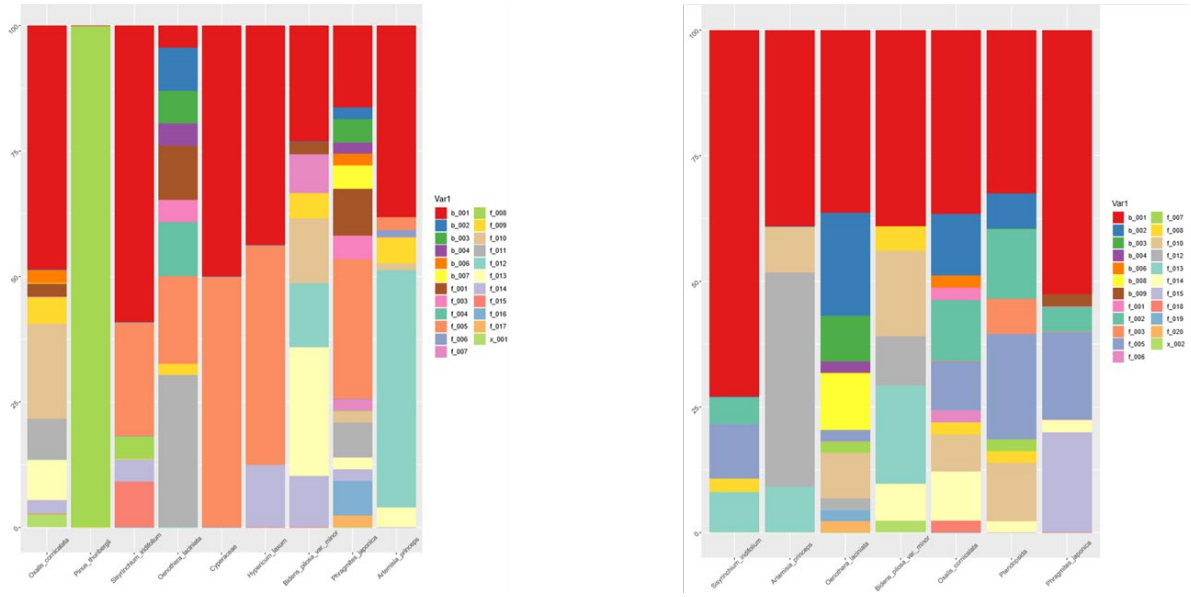

Figure3. Symbiont percentage for each plant (left: Kurio, right: Nagata)

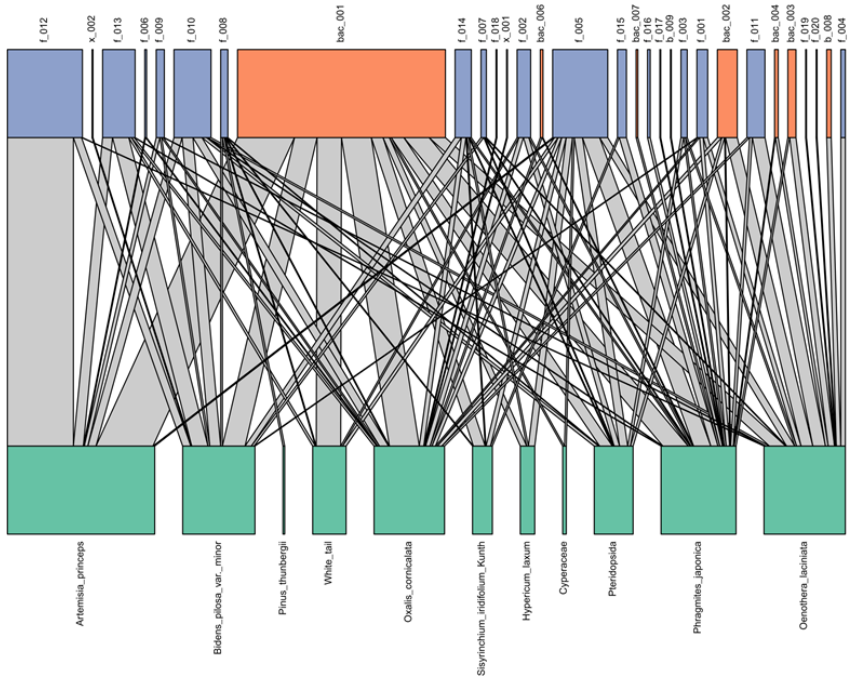

Figure4. Bipartite network of each site

I learned the method of interaction specificity analysis.
I am currently working on a poster based on these results for the symposium "The 10th International Seminar on Biodiversity and Evolution: Wildlife Metagenomics".

6. Others