

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.)

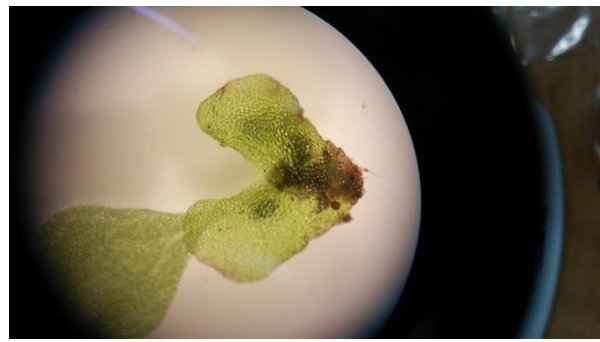
	2015. 11. 1
Affiliation/Position	Institute for Frontier Medical Science, Kyoto University / M1
Name	Takehiro Tanaka

1.	Country/location of visit
	Yakushima Island, Kagoshima Prefecture, Japan
2.	Research project
	Species composition and phenology in fern sporophyte and gametophyte
3.	Date (departing from/returning to Japan)
	2015. 10. 18 – 2015. 10. 24 (7 days)
4.	Main host researcher and affiliation
	Dr. Shinohara, Professor at Kagawa University and Dr. Kudoh Professor at 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.
	<p>In this field science course, we learned the fundamental methods to study the ecology and behavior of various organisms. Young scientist from abroad and graduate students in Kyoto University attended the course together, using English as an official language. Participants formed into deer or plant team, and each team engaged in different tasks.</p> <p>I belonged to the plant team, and collected ferns to study their distribution in Yakushima Island. Ferns have a life cycle that alter their haploid gametophyte and diploid sporophyte. However, it is unclear whether species composition of fern gametophyte and sporophyte vary with location and season within Yakushima Island. To address this question, we collected fern gametophytes and sporophytes at some locations, then analyzed species composition within locations. Consequently, we revealed the distribution of fern species. We are going to present these results with outcome of subsequent genome course on November 5th.</p> <p>Schedule was as follows: October 18th (Sun), Arriving at Yakushima Island, and explanation about this study October 19th (Mon), Sample collection at 3 locations of Miyanoura river (宮之浦川) basin October 20th (Tue), Sample collection at 2 locations of Onna river (女川) basin October 21st (Wed), Sample collection at a location of Hanaage river (花揚川) basin October 22nd (Thu), Data analysis and preparation for presentation October 23rd (Fri), Presentation October 24th (Sat), Departure from Yakushima</p> <p>Methods are as follows: We collected fern gametophytes and sporophytes using a random sampling technique at 3 locations of Miyanoura river basin, 2 locations of Onna river basin and a location of Hanaage river basin. Then we identified the species of sporophytes by morphological features and description referred to illustrated encyclopedia, and classified gametophytes morphologically into cordiform (heart-shaped) and non-cordiform (ribbon-shaped). All samples were send to Kyoto for subsequent genome course.</p> <p>In this course, I had lived with foreigners and people who study what I didn't know, and communicated with English. I studied a lot of knowledge, methods, way of thinking and anything I didn't know from them, and my English got better thanks to them. I could not have had such a chance if I had done only my own study. I learned a lot within this course.</p>

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Fern sporophytes



Fern sporophyte (left) and gametophyte (right)



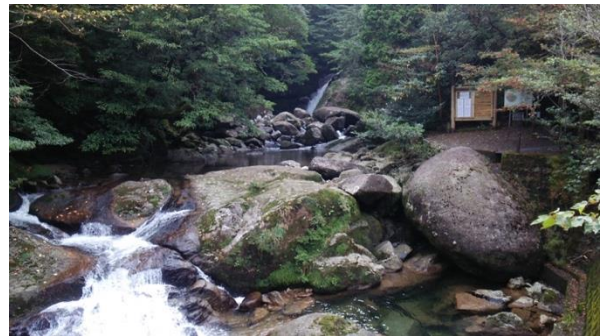
Random sampling



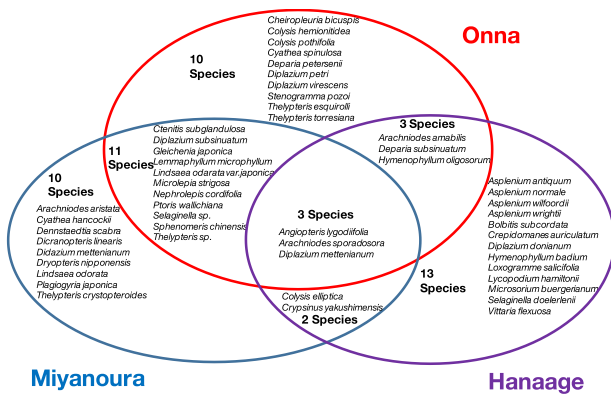
Miyanoura river



Closing party (BBQ)



Shiratani Unsui-kyo



Distribution of sporophytes



Plant team

6. Others

This study is supported by PWS. I thank PWS staff, professors and all participants of this course, especially members of plant team.