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	National Institute of Amazonian Research - INPA
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1. Country/location of visit

Japan / Kyoto / Wildlife Research Center - Kyoto University

2. Research project

Genome Science Couse

3. Date (departing from/returning to Japan)

2016. 05. 30 – 2016. 06. 03 (07 days)

4. Main host researcher and affiliation

Dr. Miho Inoue-Murayama (Professor, Wildlife Research Center of 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.

During the Genome Science Course we analyzed the fecal samples from deer collected during the Field Science Course. The main objectives of this course were sex identification of the individuals and DNA sequencing. Therefore, we were divided in three groups to increase the efforts of the sample analysis.

We extracted the DNA from the fecal samples and amplified by PCR and checked the bands by electrophoresis. The DNAs were sequencing for haplotypes identification.

On the firsts days the steps did not work so well, so, the professor Murayama suggested some modifications in the protocol.

After the laboratory work, we observed that only two animals were wrongly sex identified in the field, and that seven haplotypes were found. We also observed that DNA kept intact for sex identification; however degraded for sequencing, after long time of exposure of fecal pellets before collection.

All genetic data were compared with behavior data to verify the relationship between DNA haplotypes and social behavior.

The results of this course in addition of the results from Deer team of the Field Science Course were presented during the The 5th International Seminar on Biodiversity and Evolution: New Methodology for Wildlife Science".

I personally enjoined this course because I learned about the use of new tool for genetic assessment in wild animals. This tool could be very useful for future works that I will conduct.





Fig 1: Students working on DNA sequencing protocol

Fig 2: Preparing the samples for eletctrophoresis

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Fig 4: sex identification results



Fig 5: Group discussion about the results



Fig 6: Presentation of the results during the Seminar

6. Others

I would like to thank the PWS for the all support for this course. I also thank professor Murayama and her students for teaching this useful technique.