## Research Activity Report Supported by "JSPS Core-to-Core Program(International Core of Excellence for Tropical Biodiversity Conservation focusing on Large Animal Studies )" "Leading Graduate Program in Primatology and Wildlife Science" (Please be sure to submit this report after the trip that supported by CETbio.PWS.)

	2018. 08, 06
Affiliation/Position	Indian Institute of Technology, India / Research Scholar
Name	Seema Sheesh Lokhandwala

1. Country/location of visit

Kyoto, Japan

2. Research project

Study on geographic distribution of mtDNA haplotypes in Yakushima Macaques (Macaca fuscata yakui)

3. Date (departing from/returning to Japan)

Arrive in Japan: 14/05/2018 – Depart from Japan: 15/06/2018

## 4. Main host researcher and affiliation

Dr. Takushi Kishida, Professor at Wildlife Research Centre, 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 this visit, I conducted a week-long lab course on in Kyoto to analyze the genetic material collected from Yakushima macaque fecal samples during the field course.

I used this opportunity to learn how to store, extract and analyze fecal genetic samples. Being an engineer, I had no experience of analyzing mitochondrial DNA previous to this course and so it was a great opportunity for me to learn how to handle genomic data. The first four days I did DNA extraction, PCR amplification and ethanol precipitation. The last day I did DNA sequencing and learnt how to identify haplotypes.

Through this experience, I have developed a clear vision on how to extract fecal DNA without contaminating the samples and what is required for successful sequencing of fecal DNA. I now know how to carry out the analysis from sample to genomic data and the sorts of information I can get from fecal genetic samples. I learnt how to edit DNS sequences, view and arrange them using the software MEGA 7. I have also gained experience of presenting the genetic data geographically using QGIS.

Fecal genetic sampling is a technique allowing us to study the population genetics of endangered animals in non-invasive ways reducing the disturbance to the species. The laboratory skills I have gained to perform these analyses will be extremely useful for studying species conservation in the future. I am now interested in sequencing elephant DNA and identifying FOX P2 gene in elephant.

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Presentation of the results from the primate field and genome courses at the 8th International Seminar.

## 6. Others