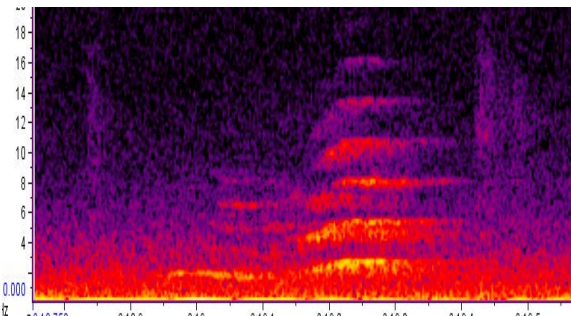
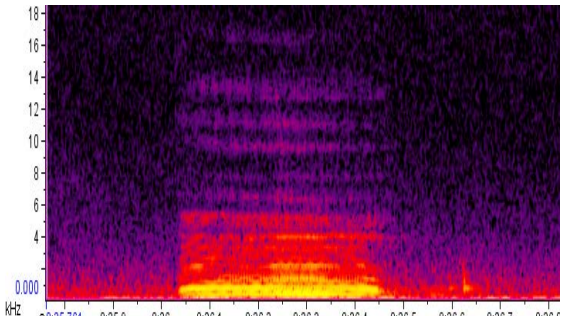


Research Activity Report
Supported by “Leading Graduate Program in Primatology and Wildlife Science”
 (Please be sure to submit this report after the trip that supported by PWS.)

2016. 05, 13	
Affiliation/Position	Wildlife Research Center/D1
Name	Nachiketha Sharma

1. Country/location of visit
Koshima, Miyazaki Prefecture, Japan
2. Research project
Vocal communication and associated behaviors in Koshima macaques
3. Date (departing from/returning to Japan)
2016.05.04-2016.05.12 (09 days)
4. Main host researcher and affiliation
Dr Hideki Sugiura and Dr Michio Nakamura, Associate Professors, Wildlife Research Center of Kyoto University. TakafumiSuzumura, Koshima field station, Wildlife Research Center, 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>My research interest is to understand the vocal communication in free ranging Asian elephants. So, I wanted to learn the basics of data collection in the field. This field science course gave me an opportunity and good exposure to learn many techniques including data analysis. During three days of field work (6th-8th May 2016), I examined the vocal communication patterns and associated behaviors among individuals and how ‘rank’ of females in the society affect the calling patterns of their offspring.</p> <p>For data collection, the continuous sampling method was carried out to examine the different calls produced by individuals according to the different behavioral context. And the focal animal sampling was carried out to assess the variation within each call types. I used handheld ‘Sony PCM-D100 Linear recorder’ to record vocal sounds of macaques. The data was analyzed by using Raven Lite 1.0 (free version). I also followed juvenile (Tabu) of alpha female (Shide) and juvenile (Binega) of low ranked female (Giboshi), to measure the possible effects of social status of mothers on their communication.</p> <p>I found few interesting results, however this needs to be examined further with large sample size.</p> <p>This study mainly recorded 2 different calls. Figures explain the spectral characters of different sounds.</p> <ol style="list-style-type: none"> 1. Coo calls- produced during provisional feeding, and while contacting other individuals. There is a clear difference between the calling patterns of alpha male and alpha female and the variation within the ‘coo’ calls are prominent (Fig 1 a,b; Fig 2 a, b)
<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>Fig 1 a. Food call of Alpha male</p> </div> <div style="text-align: center;">  <p>b. Contact call of Alpha male</p> </div> </div>

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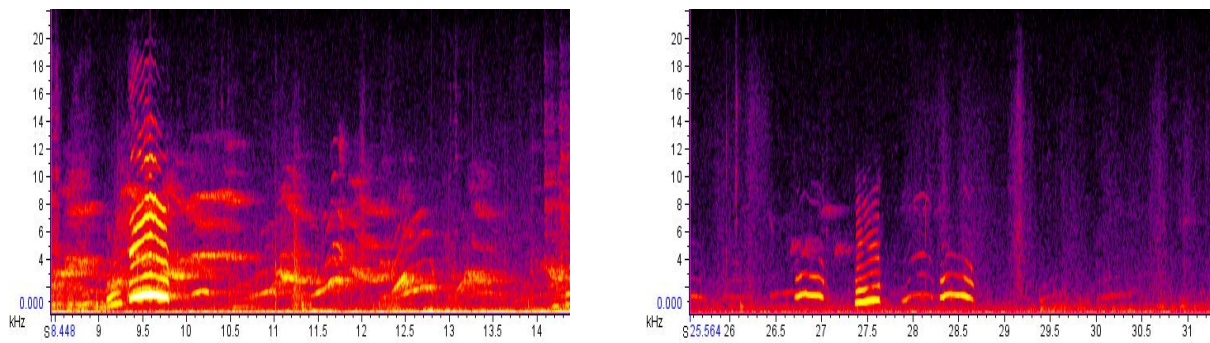


Fig 2 a. Variation in the food calls of alpha female

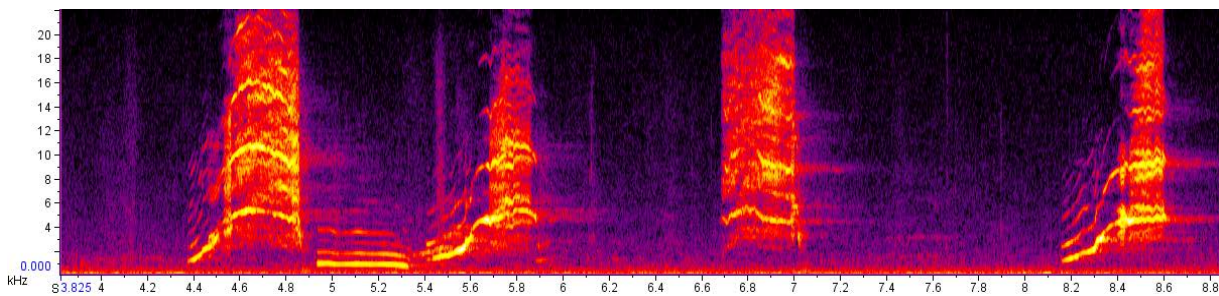


Fig 2 b. Food call of a juvenile

2. Aggression calls- are mainly produced during the conflict between the conspecifics and during the disturbance from human being.

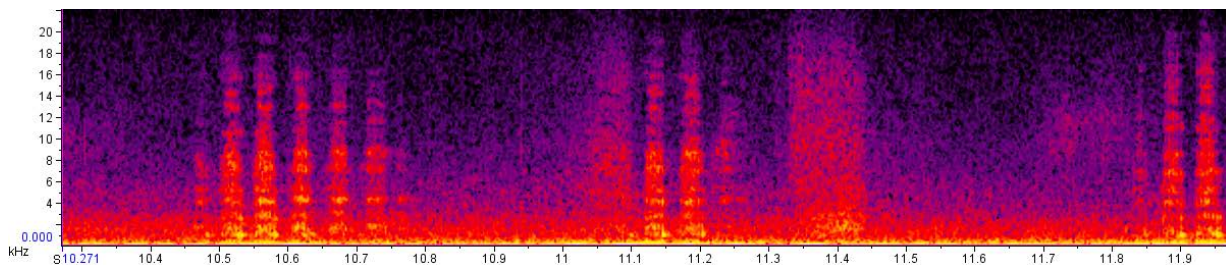


Fig 3 'Gurr' call of a young female

Some of the other observations are:

1. Vocalizing patterns seem to be associated with feeding cues, for example boat sound, humans etc
2. Intensity and frequency of calls increases during provisional feeding
3. Coo calls of 'Alpha' male got a high response from the other individuals before provisional feeding
4. Juveniles of alpha female call more frequently with low intensity, whereas juvenile of lower ranked female call less frequently with high intensity. (Two trials were conducted to test this hypothesis. In each trial, calling patterns of two juveniles was counted before and during the feeding. Also distance between the food source and juveniles and their mothers was noted)

Visiting the “Cape Toi” to observe feral horses was a very good experience. I have seen feral horses in India, but never observed them peacefully for such a long time. I also noticed few mating rituals, where males run in slow and rhythmic motion with head raised towards females.

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The cultural propagation of learnt behavior in animals is very interesting and exciting. Overall, this trip taught me how to do the field work with minimum resources. This experience and skills learnt will certainly help me in my field work.



Macaques washing carrots



The grooming



Learning some important lessons



Wonderful people



Observing feral-horses in Cape Toi



A year old foal resting

6. Others I would like to express my sincere gratitude to Sugiura-sensei, Nakamura-sensei and Suzumura-san for their support and guidance. Also many thanks to my wonderful friends who took lot of care in arranging vegetarian food and answering my trivial questions with lot of patience. I'm grateful to PWS for giving me an opportunity to participate in the field course.