# 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	Primate Research Institute/M2
Name	Shohei Shibata

# 1. Country/location of visit

Uganda / Kalinzu Forest Reserve

## 2. Research project

Comparative study of aggression and physiological condition of male chimpanzees and bonobos

## 3. Date (departing from/returning to Japan)

17 June 2018 – 8 September 2018

## 4. Main host researcher and affiliation

Kyoto University, Dr. Hashimoto

National Forestry Authority

## 5. Progress and results of your research/activity (You can attach extra pages if needed)

The scope of this report is my study on chimpanzees.

Itinerary 17 – 19 June Inuyama – Narita – Addis Ababa – Entebbe

20 June Kampala to Kalinzu

21 June – 3 September Kalinzu Forest Reserve

4 September Kalinzu to Kampala

5 – 8 September Entebbe – Addis Ababa – Narita - Inuyama

#### Research on Chimpanzees

In this study, my aim is to collect urine and fecal samples while observing and recording male-male interactions among M group chimpanzees in Kalinzu Forest Reserve. In this study period, I collected 99 urine samples and 84 fecal samples. During dry season, chimpanzees tended to rest most of time on the ground so it was easy to observe. The number of adult males observed drastically changed day by day. When there were females showing sexual swelling, it was not unusual that we could observe all of adult males of M group. On the other hand, there were few days we could observe all of them in the absence of such females. In order to investigate the factors which causes such kind of dispersing tendencies of adult males, I analyzed the relationship between the number of males and the frequency of male aggression. We found that the frequency of male aggressive behaviors increased along with increments of males attend to the party in both the absence and presence of females showed maximum sexual swelling. Male chimpanzees seem to be dispersing to avoid expressing and receiving intense aggression especially in the absence of female. In the next step of our study, for getting other hints, we are currently conducting hormonal analysis of cortisol and testosterone in order to investigate the focal subject's physiological markers.

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During observations, I recorded 5 cases of meat eating of chimpanzees. The behaviors of males after catching monkeys change depending on the situation. There were times when males show aggressive behaviors over meat while screaming, but there were also times when males do not show aggression and they share meat silently. I am going to investigate relationships between individuals, party compositions and other social situations when meat sharing was occurred.



Fig1,2. Adult male eating meat. Mainly black and white colobuses and red-tailed monkeys are eaten by chimpanzees.



Fig3. Excited adult male eating meat.

#### 6. Others

I would like to thank the PWS program for supporting this field work.

I also would like to express my appreciation to Dr. Chie Hashimoto and Dr. Takeshi Furuichi for giving me practical advice.