## **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.)

	2017. 09, 05
Affiliation/Position	Primate Research Institute / D3
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## 1. Country/location of visit

Wamba, Democratic Republic of Congo

#### 2. Research project

Micro-analysis of grooming interactions in wild bonobos

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

2017. 03. 05 – 2017. 08. 10 (159 days)

#### 4. Main host researcher and affiliation

Takeshi Furuichi - Primate Research Institute, 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.

From March 8<sup>th</sup> to August 6<sup>th</sup>, 2017, I was in Wamba to conduct my fieldwork on wild bonobos. This fieldwork represented the last part of my PhD data collection. I already collected data on captive chimpanzees, captive bonobos and wild chimpanzees, so this was the last piece I needed to do the two-by-two comparison on grooming patterns.

I arrived in Kinshasa on March 5<sup>th</sup> and stayed two days there to get the documents needed with the help of Mr Mwanza and Mr Gunza. I flew to Djolu on March 7<sup>th</sup> where I met Sakamaki-san there. The plane ride over the Congo was incredible. For more than two hours you fly over the immense forest - the view was amazing. On March 8<sup>th</sup>, I left to Wamba but before that we enjoyed the ceremony for the international Women's Day.

Wamba is a village situated in the Luo Scientific Reserve. When I arrived there, I was surprised by the number of employees. Thirty persons are employed by the WCBR (Wamba Comity Bonobo Research): 10 trackers, 2 botanists, 3 cooks, 3 guardians, 1 technician, and 11 persons managing the forest trails.

Two groups of bonobos are followed every day by two teams of five trackers: E1 group and PE group. There are also two other neighboring groups: PW group where all members are identified, and Bimbo group where the identification is still going on.

E1 is the biggest group and is the one that was originally studied by Professor Kano since 1974.

I studied PE group. PE group is studied since more recently. Its identification started in 2007, and since 2010, PE is entirely identified and followed every day. The group composition is as follow: 4 adult males, 9 adult females, 1 adolescent male, 3 juvenile males, 3 juvenile females, and 6 infant females.

The camp is very well organized. Two trackers of each group leave the camp around 4:40 in the morning with the researchers. At 10:00, the afternoon trackers leave the camp to switch with the morning trackers around noon. If one researcher wants to follow bonobos a bit more in the afternoon but not stay until the night nest, one morning tracker can continue to work.

This time, it was not like in Bossou, I did not have to manage the field site, and I only focused on my research. Sakamaki-san with the help of Toda-san and Okamura-san took care of the management.

Bossou chimpanzees have the particularity to be isolated, having no neighboring groups around them with no female immigration reported, thus I could not observe intergroup encounter while I was in Guinea. PE group frequently met with PW group, travelling and interacting with each other. It was very interesting to observe these events. Once, I could observe the four groups together: PE + PW + E1 + Bimbo groups.

I followed bonobos from their morning nest to around 13:00. We usually left the camp at 4:40 in the morning to arrive at the nest site before 6:00. Depending on where bonobos make their nest, it can take up to two hours to arrive to the nest site. Bonobos from PE group rarely groom in the afternoon, so I decided to go back to the camp in early afternoon.

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In total, I followed PE group during 88 days for a total of 559 hours. Within this observational period, PE group encountered and travelled with PW group during 34 days and for a total of 152 hours.

I video recorded bonobos in continuous every time they were feeding or resting waiting for them to start grooming. I collected a total of 431 full dyadic grooming interactions (involving only two individuals from the beginning till the end, and where the full interaction is visible on the camera).

## For PE group:

- $\circ \quad \ \ Adult-adult: 166\ interactions\ from\ 59\ dyads.$ 
  - Male Male: 9 interactions from 6 dyads.
  - Male Female: 70 interactions from 24 dyads.
  - Female Female: 87 interactions from 29 dyads.
- Infant Infant: 32 interactions from 12 dyads.
- Adult Infant: 180 interactions from 47 dyads.
- $\circ$  Mother Offspring: 119 interactions from 13 dyads.

#### For PE and PW groups:

 $\circ$  PE adult – PW adult: 34 interactions from 26 dyads.

The data collection went well. I will be able to compare these data to the ones of wild and captive chimpanzees and captive bonobos. In addition, thanks to the group composition of the wild bonobo group, I will be able to look at the influence of several social parameters on the grooming patterns such as age, sex, kinship, grooming frequency, rank, and the female sexual skin. PE group frequently encountered PW group and groomed with each other, so I will also look at the influence of the group composition of the dyad by comparing grooming between PE-PE dyads and PE-PW dyads.

I am back to Japan now and I will start to code the videos.

Overall, I had a very interesting, enriching, and productive time in Wamba. I wish I could understand and speak Lingala with the staff here to learn more about their culture and traditions. However, the staff and Wamba villagers regularly kindly invited us to participate in their celebrations, so it was great to learn more about and experience their culture.

I would like to thank Professor Furuichi for allowing me to conduct my study in Wamba, the trackers of PE group: Iyokengo, Emikei, Bafike, Isolumbo, and Mboka, the other staff members as well. Finally, I am very grateful to the Leading Graduate Program in Primatology and Wildlife Science and to Professor Matsuzawa for supporting this trip.

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During the International Women Day ceremony in Djolu.

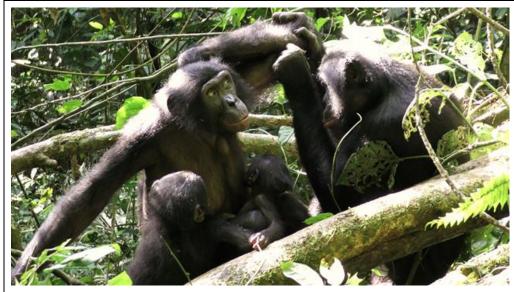


Group of musicians for the International Women Day ceremony in Djolu.



Women (defilant) for the International Women Day ceremony in Djolu.

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Snare grooming Marie. Marina (3 years old) and Margaux (3 months) drinking milk from their mother Marie.



Maluta grooming the chest of Gai.



Marie grooming the face of Snare.

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Kale getting food from his mother Kabo.



Females sharing Bimbo fruit.



Bokuta sharing her food with Pao.

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Sato requesting to drink milk to her mother Saku.



Maluta and Ichi eating.



Jane vocalizing.

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Marina requesting to drink milk to her mother Marie.



Marie yawning.



Marie vocalizing and her daughter Marina.

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6. Others