





**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.)

2016.11.07

<b>Affiliation/Position</b>	Primate Research Institute / D1
<b>Name</b>	Kazuya Toda

<b>1. Country/location of visit</b>
Democratic Republic of the Congo, Wamba Village
<b>2. Research project</b>
Study on the proximate mechanisms of female dispersal in bonobo male-philopatry societies at Wamba
<b>3. Date (departing from/returning to Japan)</b>
2016. 05. 07 – 2016. 11. 04 (181days)
<b>4. Main host researcher and affiliation</b>
The Research Center for Ecology and Forestry in the DR Congo
<b>5. Progress and results of your research/activity</b> (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>I am engaged to study on the proximate mechanisms of female bonobo dispersal to clarify female strategies in bonobo male-philopatry societies. I have studied wild bonobo groups in Luo Scientific Reserve, Democratic Republic of the Congo. So far I had observed directly bonobo groups for 1,515 hours, and I added 804 hours in this research period from May 18<sup>th</sup> to Oct 27<sup>th</sup>, 2016.</p>
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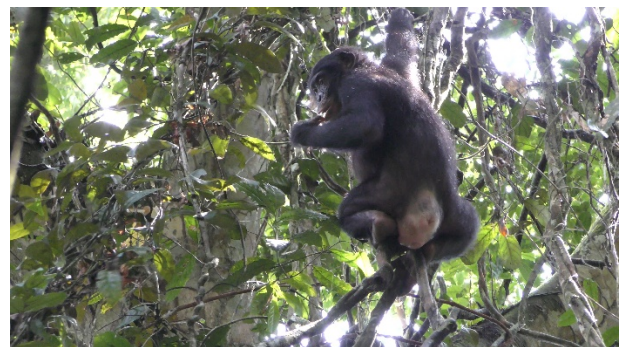
My main subjects have been 14 nulliparous females (10 natal females, 4 non-natal females) in the two subject groups. I have observed diachronic their behaviors to grasp the change tendencies of behavioral patterns and social relationships before and after female dispersal. I have collected their urine samples with a non-invasive method to reveal their developmental phases of sexual maturity with female dispersal by sex hormone experiments.

I'll introduce some observations in this period with individual information (\*Estimation Ages). When inter-group encounter among the subject groups happened in August 2016, Yume (6 years and 10 months old), Pipi (8 years old\*) and Debby (7 years old\*) emigrated from the natal groups to unfamiliar groups. These cases are identical that female bonobos emigrate earlier from the natal groups at 6-9 years old than that female chimpanzees do at 11-13 years old. Although their sexual skins did not seem to develop substantially even before the natal emigrations, I observed that Debby started to copulate with males frequently after the emigration.

During the inter-group encounter, Ichiko (9 years old\*) and Sachi (8 years old\*) frequently copulated with their natal-group males. They seemed not to avoid inbreeding from the recognition to the natal-group males.



Ichiko (9 years old\*)



Sachi (8 years old\*)

Puffy, which immigrated into the subject group at 10 years old\* in October 2013, got pregnant and gave first birth at 13 years old\* in October 2016. Puffy is considered to settlement down the subject group.



Puffy (Pregnant)



Puffy and her infant



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Chiyochoyo, which is an old female at 60-65 years old\*, had carried a skeletal of black-cheeked white-nosed monkey for over 1 month. She usually moved with the skeletal hanging on her neck. What motivated her to carry it?



I took part of field management at Wamba for 6 months in this research period. I experienced many opportunities of discussions about supports for local hospital, school and market with Wamba people. Actually, such works deeply rooted in local areas are important for field research, because we need to get the understanding of research and conservation from local people. Many previous researchers had established good relationships with Wamba people, so we need to continue to develop it.



## 6. Others

We sincerely thank the Research Center for Ecology and Forestry and Ministry of Scientific Research, DRC for helping our field research. We are also grateful to local assistants and others at Wamba for their support during our study. This research was financially supported by the Leading Graduate Program in Primatology and Wildlife Science of Kyoto University.

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