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.)

	2020. Feb, 14
Affiliation/Position	Primate Research Institute/D1
Name	Shohei Shibata

1. Country/location of visit

Democratic Republic of the Congo, Luo Scientific Reserve, Wamba

2. Research project

Study on the evolution of coexistence mechanisms of males in *Pan* genus

3. Date (departing from/returning to Japan)

21 July 2019 – 17 January 2020

4. Main host researcher and affiliation

Kyoto University, Wamba Committee for Bonobo Research (WCBR), Dr. Furuichi,

Center of Research for Ecology and Forestry (CREF), Jaques Batuafe Bakaa

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

The scope of this report is my study on bonobos.

Itinerary

21 - 22 July 2019

Inuyama - Narita - Addis Ababa - Kinshasa

26 July 2019

Kinshasaa – Djolu – Wamba

26 July 2019 – 12 January 2020 Luo Scientific Reserve, Wamba

13 January 2020 Wamba to Djolu

14 January 2020 Djolu to Kinshasa

16 - 18 January 2020

Kinshasa – Addis Ababa – Narita – Inuyama

In this study period, I followed male bonobos of E1 group to observe their social interactions and ranging patterns. Every observation day, I chose one adult or adolescent male as a focal animal and followed him. I recorded state of the focal animal and all individuals in proximity to the focal individual every five minutes. I also recorded compositions of parties which the focal animal belonged to by using "One-Hour party method" and all interactions observed in the parties.

Most of Adult males were frequently observed alone or being peripheral. However, males whose mothers were still alive in the same group were often observed with their mother, their siblings and other females. Interactions between males were observed less frequently than those between females. Males without mother might not be able to stay in central area of the parties because no other individual may protect them. The period between October and mid-December was rainy season, and it rained almost every day. When it rained and was cold, bonobos tended to stay in the high place in the trees and rest for long time. Even when they were resting on the trees, adult males whose mothers had already gone were frequently observed being alone.

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I observed aggressive behaviors between males quite frequently and almost all of them were threatening behaviors like chasing or directed display and not severe. Most of aggressive behaviors were triggered by provocative behaviors of two males, Jiro and JO. Those two males were often chased by females or/and other males. When they were not in the party, aggressive behaviors among males were rarely observed. In this period, I observed several cases of injuries of males (Fig. 1, 2) in spite of the mild aggressive behaviors among them. I did not observe such injuries in females. Although I did not witness how the males got injured, there might be intense aggression among males or between females and males. I am planning to conduct another field observation in Wamba from September in this year.



Fig. 1 Gauche with a wound on the head

Fig. 1 Dai with a wound on the forehead

I took part of field management works for 5 months during this research period. I had opportunities to join some meetings between Center of Research for Ecology and Forestry and Wamba people. It was precious experience to learn the life of local people and what kinds of difficulties they are facing, and to consider what we actually can do for them. Our research activities have been conducted with local people's understandings and their cooperation. It is essential to maintain good relationships with them to continue the research projects.

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. Takeshi Furuichi, Dr. Chie Hashimoto and Dr. Nahoko Tokuyama for their practical advice on my study.

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