
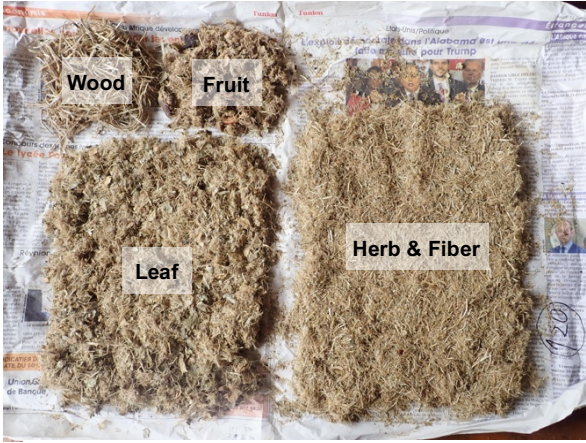


**Research Activity Report**  
**Supported by “Leading Graduate Program in Primatology and Wildlife Science”**  
 (Please be sure to submit this report after the trip that supported by PWS.)

	2019. 4. 22
<b>Affiliation/Position</b>	Graduate School of Science (Human Evolution Studies) / Graduate Student (D2)
<b>Name</b>	Mayuko NOMOTO

<b>1. Country/location of visit</b>
Moukalaba-Doudou National Park and Doussala village, Gabon
<b>2. Research project</b>
Studies on feeding ecology of forest elephants
<b>3. Date (departing from/returning to Japan)</b>
2018. 8. 30 – 2019. 2. 26 (180 days)
<b>4. Main host researcher and affiliation</b>
Institut de Recherches en Ecologie Tropicale (IRET, Research Institute for Tropical Ecology)
<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>The objective of this research is to clarify the diet of the forest elephant (<i>Loxodonta cyclotis</i>) by fecal analysis and to see if there are any dietary differences according to sex and age class.</p> <p>I conducted fieldwork in and around Moukalaba-Doudou National Park from September 11, 2018 to February 17, 2019. I walked within the park and around Doussala village to find fresh feces of forest elephants. When I found them, I collected DNA samples, recorded the locations with Garmin GPS 64S, and measured the diameters of several boluses from each fecal pile on site. One bolus was then brought back to the research station to analyze feeding contents. After washing and drying, food remains in feces were divided into six categories as below:</p> <ol style="list-style-type: none"> <li>1. Leaf: dicotyledonous leaves</li> <li>2. Wood: wooden materials</li> <li>3. Fruit: fruits and seeds</li> <li>4. Herb &amp; Fiber: Monocotyledonous leaves (except for Marantaceae) including fine fibers</li> <li>5. Marantaceous leaves</li> <li>6. Piths</li> </ol>
<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p><b>Picture 1.</b> An elephant group observed in savanna</p> </div> <div style="text-align: center;">  <p><b>Picture 2.</b> Fecal analysis of forest elephant</p> </div> </div>

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In addition, I collected any newly-found fallen fruits in the field to make seed specimens for references. The seeds found in elephant feces were identified by comparing with these references.



**Picture3.** Seed specimens of Digembi (local name) (Left) and seeds found in an elephant dung, identified as of Digembi (local name) (Right)

I am currently working on the DNA sexing experiment in WRC to see the dietary differences between sexes. I am also planning to conduct some other fieldworks in the dry season and the crop season in order to understand the yearly dynamics of elephant diet.

## **6. Others**

I am deeply grateful to CENAREST(Centre national de la recherche scientifique), ANPN(Agence Nationale des Parcs Nationaux), IRET and IRSH(Institut de Recherches en Sciences Humaines) for the permission and enormous helps in conducting this research. I would like to express my gratitude to researchers and research assistants in Moukalaba-Doudou National Park and Doussala villagers. This research was financially supported by the Leading Graduate Program in Primatology and Wildlife Science, Kyoto University.