

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.)

	2018. 03. 20
Affiliation/Position	Wildlife Research Center/M1
Name	Moe Yanagi

1. Country/location of visit
Uganda, the Kibale National Park
2. Research project
Monitoring the lifestyle of African elephants in the hybrid zone between <i>Loxodonta africana</i> and <i>L. cyclotis</i> in the Kibale National Park, Uganda
3. Date (departing from/returning to Japan)
2018.01.07~2018.03.01 (54 days)
4. Main host researcher and affiliation
Makerere University Biological Field Station (MUBFS) Project Director Patrick Aria Omeja
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.
I have conducted a field survey at the Kibale National Park in the Uganda Republic from January 7, 2018 to March 1 this year. Data collection for writing his master's thesis is the purpose of this trip. The schedule was as follows:
<p>【Schedule】</p> <p>January 7 – 8 Kyoto → Itami Airport → Narita Airport → Doha Airport → Entebbe Airport → Kampala</p> <p>January 9 Preparation for survey at Kampala</p> <p>January 10 Kampala → Fort Portal → Kibale National Park (MUBFS)</p> <p>January 11-19 Field survey at Kibale National Park,</p> <p>January 20 Observation of elephants at Queen Elizabeth Park</p> <p>January 21 - February 25 Field survey at Kibale National Park</p> <p>January 26 Kibale National Park → Entebbe</p> <p>January 27 - 28 Entebbe Airport → Doha Airport → Narita Airport</p> <p>March 1 Haneda Airport → Itami Airport → Kyoto</p>
<p>【Background】</p> <p>Kibale National Park in Uganda is a field of about 795 km² where forests and meadows are mixed, and African elephants are living in large area of the park. Originally this is the habitat for Savannah elephants, but in recent years Forest elephants has migrated from the Democratic Republic of the Congo As a result, it is reported that the population of elephant increases and hybrids of savannah and forest elephants are increasing. However, the lifestyle of the hybrid population has not been surveyed yet. it is most important to understand them in order to reduce the conflicts between residents and elephants, and promote the protection of the endangered African elephants. From these point of view, this study aimed to grasp the lifestyle and characteristics of the elephant population of Kibale National Park and to use it for practical conservation and management.</p>
<p>【Result】</p> <p>In this field survey, I conducted fecal analysis and survey investigation (line census) under various vegetation and land conditions in order to grasp their characteristics of diet information and habitat. I measured the proportion of fruits, trees, leaves etc from the fecal analysis, and recorded traces of elephants during the survey to analyze their geographical preference such as vegetation, the distance from the water source, NDVI (Normalized Difference Vegetation Index) and altitude DISTANCE software was used for calculation of fecal detection rate and density, QGIS was used for analyses of distance from water source, NDVI, and altitude. As a result, the results of fecal analysis revealed that the proportion of fruit diet was lower than that reported in forest elephants, the frequency of habitat use was significantly higher in secondary forests and grasslands than primary forests. These results are important information to predict their behavior, and these results suggested areas and places where neighboring rural areas in contact with the park should focus on</p>

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preventive measures against agricultural crops.

I will analyze the genetic diversity of this population and the distribution situation of the two species using analysis of DNA samples collected from fresh feces of elephants in this survey.



Photo 1 : Field survey at Kibale National Park



Photo 3 : Crop raiding by elephants

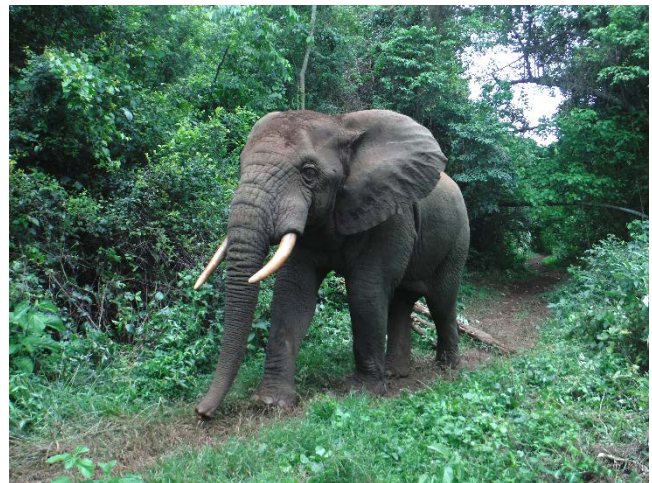


Photo 4 : Elephant photographed by camera trap

6. Others

This survey was financially supported by PWS. I would like to express my deepest appreciation to all staff in Kyoto university, Dr. Patrick Aria Omeja, MUBFS (Makerere Biological Field Station) who managed my accommodation, UWA (Uganda Wildlife Authority) and UNCST (Uganda National Council for Science and Technology) who gave my research permission. Thank you so much.