

Research Activity Report
Supported by “Leading Graduate Program in Primatology and Wildlife Science”

2019. 05, 03	
Affiliation/Position	Primate Research Institute/D2
Name	Raquel Costa

1. Country/location of visit
<ul style="list-style-type: none"> • Bwindi Impenetrable National Park, Uganda • The 11th International Symposium on Primatology and Wildlife Science, Science Seminar House, North Campus, Kyoto University, Japan.
2. Research project
“Assessing the current impact of mountain gorilla ecotourism in Bwindi Impenetrable National Park (Uganda)”
3. Date (departing from/returning to Japan)
2018.12.05-2019.02.25 (field work) and 2019.03.01-2019.03.03 (symposium)
4. Main host researcher and affiliation
<ul style="list-style-type: none"> • Dr. Gladys Kalema Zikusoka, Conservation Through Public Health, Uganda • Leading Program on Primatology and Wildlife Sciences, Kyoto university, Japan.
5. Progress and results of your research/activity
<p>This report presents the progress of my PhD project which aims to assess the behavioural responses of habituated mountain gorillas (<i>Gorilla beringei beringei</i>) during tourist visits in Bwindi Impenetrable National Park, Uganda. In this field season, I completed the work for the gorilla family on which my dissertation will focus. I conducted more than 2 months of behavioural data collection (between December 2018 and the end of February 2019), using focal and scan sampling to observe the animals, in the presence and absence of tourists. Therefore, and after a 2-month pilot study, I have collected 540 hours of focal observation in a 9-month data-set on one habituated group (N=15) in Bwindi Impenetrable National Park, Uganda. Kruskal Wallis and Mann Whitney tests were used to compare pre-contact, during contact and post-contact periods, and to correlate the gorillas` behaviour with the distance to tourists. Preliminary analysis shows that “Human directed behaviour” (mainly physical contact) increases more than 5 times during the tourist visit. On the other hand, gorillas will charge only when tourist are within 7 meters of the gorillas. These effects are more pronounced when the tourists come too close to the gorillas (within 3 meters, which elicit reactions from the animals). Moreover, group social dynamics are affected by close distance to humans as well - affiliation, agonism and submission behaviours increase within 7 meters from the tourists. Further analysis is necessary, but the present results caution a disturbance in the gorilla`s behaviour related to the visit of tourist especially in the violation of standard rules (to keep 7 meters from gorillas).</p> <p>Following my return to Japan, I attended the 11th International Symposium on Primatology and Wildlife Science. I had the chance to present my preliminary results and receive good comments</p>

Research Activity Report
Supported by “Leading Graduate Program in Primatology and Wildlife Science”

and suggestions. I also learned more about the society and cognition of horses, the predator-prey relationship between feral horses in Portugal and wolves, and the ethnographic value of horses in the Mongolian steps. Turning to the wildlife across the ocean, in the last day of the symposium, we heard about the primates, sloths and how climate change may impact their lives.



Figure 1 and 2. Infant (right) and silverback (left) from Rushegura group, Bwindi NP, Uganda.



Figure 3 and 4. Silverback of Mubare group (right) and adult female from Rushegura group (left), Bwindi NP, Uganda.



Figure 5 and 6. Sub-adult (right) and adult female (left) from Rushegura group, Bwindi NP, Uganda.

Research Activity Report
Supported by “Leading Graduate Program in Primatology and Wildlife Science”

6. Others

I wish to express my gratitude to my academic supervisors Prof. Misato Hayashi, Prof. Michael A. Huffman and Prof. Masaki Tomonaga and to my supervisor in the field, Dr. Gladys Kalema Zikusoka. To my colleague and friend, Ryoma Otsuka and Prof. Gen Yamakoshi for their support and encouragement. I also would like to thank Prof. Fred Bercovitch, Prof. Colin Chapman, Dr. Angela Brandao and Dr. Lilly Arajova for their support and helpful comments. I am also grateful to CTPH staff and volunteers, the UWA staff for their continuous support and the scientific permit to conduct this research. I am forever in debt to UWA trackers for their patience and help during the field work. I am also thankful to the Buhoma and Mukuno local community for their hospitality. A special thank you to PWS program, the CCSN program and, especially to Prof. Matsuzawa, for believing and supporting this field work.