

**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.)

2017.01.11	
<b>Affiliation/Position</b>	Primate Research Institute/D2
<b>Name</b>	Liesbeth FRIAS

<b>1. Country/location of visit</b>
Malaysia/ Sabah, Borneo
<b>2. Research project</b>
Sample collection for PhD research
<b>3. Date (departing from/returning to Japan)</b>
2016.12.11 – 2017.01.07 (28 days)
<b>4. Main host researcher and affiliation</b>
Dr. Sen Nathan (Sabah Wildlife Department) and Dr. Benoit Goossens (Danau Girang Field Centre)
<b>5. Progress and results of your research/activity (You can attach extra pages if needed)</b>
<p>For the third year in a row, my supervisor and I headed to Borneo for a season of sample collection in the Lower Kinabatangan River. This time we started in Sukau, a touristic village besides the river, where we collected from proboscis monkeys and long-tailed macaques. While there, we also visited Gomantong caves to collect from orangutans, red leaf monkeys and pig-tailed macaques. Standing with our backs to the cave, observing a group of pig-tailed macaques, I remembered how eager we had been to enter the cave last year. This time instead, we refrained from it, as in the last conference we had attended just a few days before, researchers had announced the discovery of a new virus strain similar to SARS, isolated from that very place. Better to be safe than sorry.</p> <p>Danau Girang Field Centre (DGFC) was the next place on the list. This year, besides sample collection we wanted to have a better idea of the relative abundance of primate species living in the area (Fig. 1). And so, every evening we would leave the station and take a boat ride towards one of the many river segments we had defined, to count how many groups and individuals per group we would encounter in that trip. In the process, we trained a research assistant that will stay until the end of February at DGFC, surveying and collecting samples for the project. Unlike other times, we arrived here in the wet season, which meant that the level of the water was higher. This made access to the tributaries easier, but access to fecal samples harder, where in most cases they would be flushed away in the river. Over the days, the water level went down a bit, leaving river banks free for monkeys to roam around, and for eager poop collectors to go after them. But mud is deceitful, and wherever we saw an opportunity to collect, there we would get stuck, spending more time fighting the thick mud than actually getting the samples. Fun stuff.</p>

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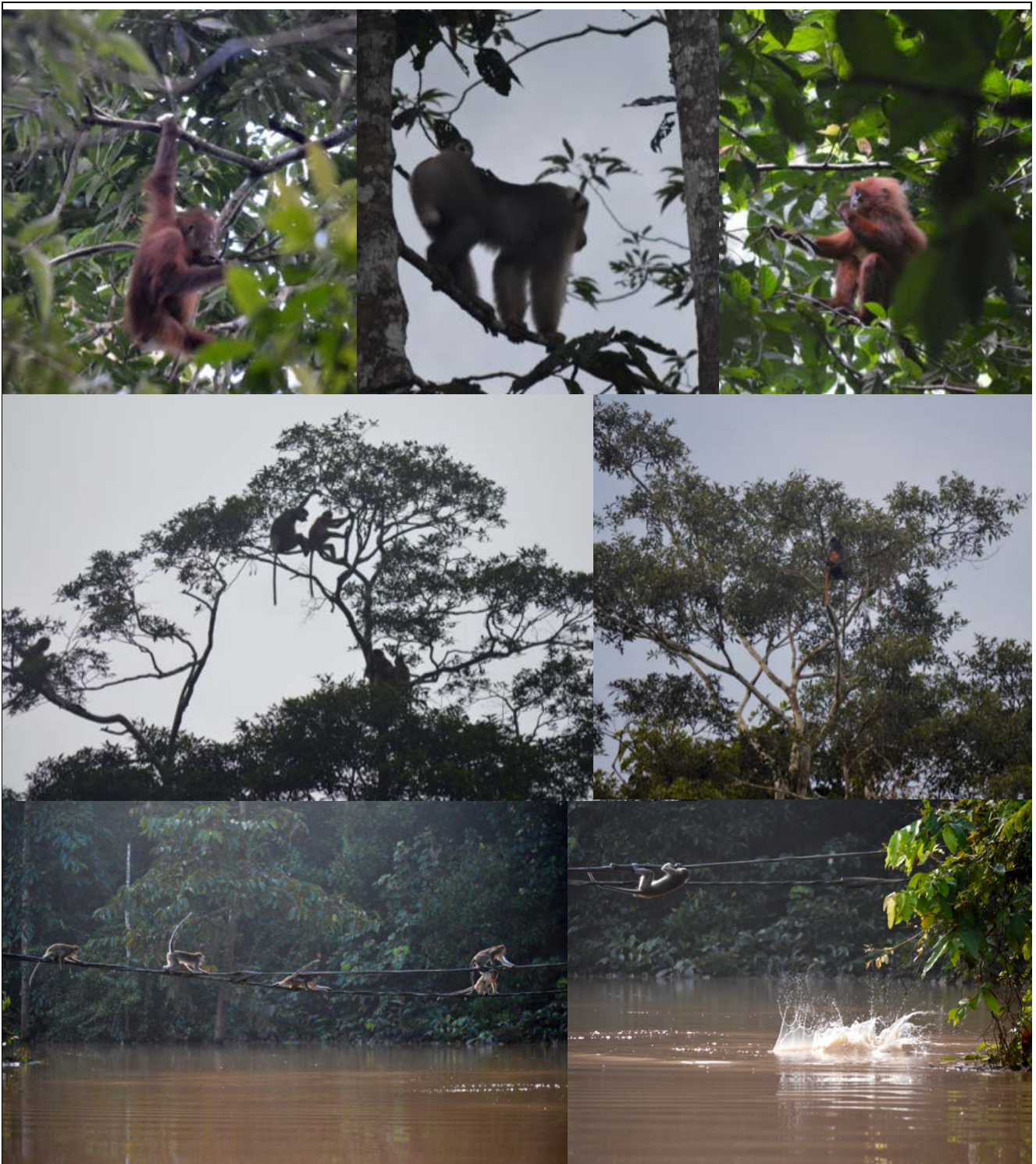


Fig. 1. Primates observed during this field season. Infant orangutan spotted at DGFC, solitary pig-tailed macaque, and red leaf monkey in Gomantong Caves (top). Proboscis monkeys preparing to sleep and silvered leaf monkey with an infant. They are born with orange fur that then changes to the adult color (middle). Long-tailed macaques using a bridge to cross a tributary; they are not always graceful and they do not always make it dry to the other side (bottom). Photo credit: Liesbeth Frias.



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Sample collection this year went smoothly. I want to think I have gotten better at identifying primates from the distance and that my nose and ears are better trained to the particular smell of feces and the noise of flies and dung beetles. I'm not too proud to admit (maybe just a teensy bit) that many times I did steal the product of their hard work (Fig. 2)... I guess life in the jungle is not easy for anyone! Activities at DGFC were also quieter this year; with Christmas coming up, everybody was heading out for short and deserved holidays. We did have the chance to see almost all men at the station handle a 19 kg reticulated python, while Rich, one of the researchers there, attached a tracking device to its tail.

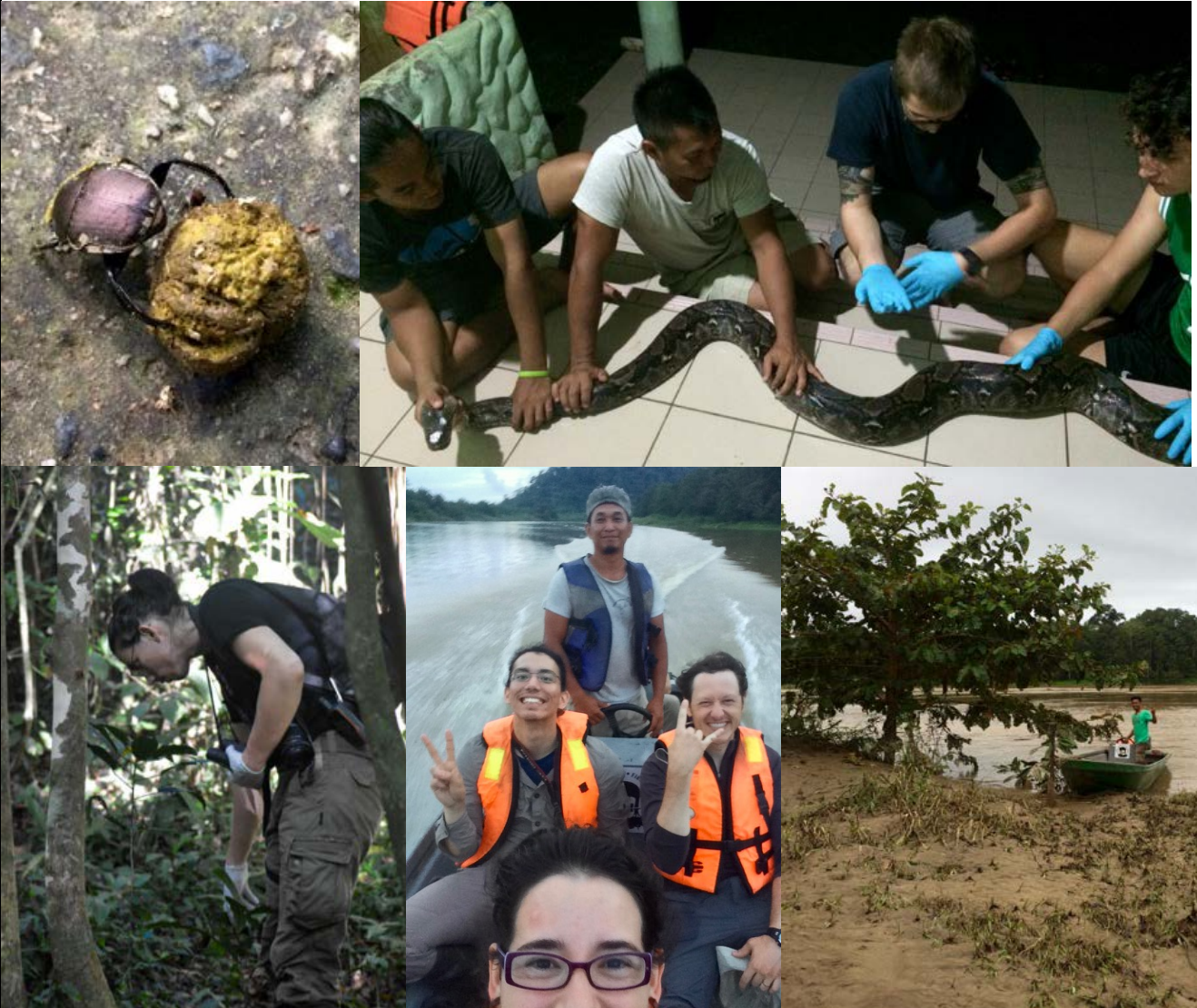


Fig. 2. Fieldwork at DGFC. Perfect ball of dung; coincidentally, also perfect size for collection (top left). RAs immobilizing a reticulated python, while researchers attach a tracking device to monitor the python's home range (top right). Our personal RA looking for orangutan feces (bottom left). Primate Parasite Team 2016 (bottom middle). Sometimes you get stuck at work. Sometimes quite literally. Collection during the wet season proved to be quite a challenge (bottom right). Photo credit: Liesbeth Frias.

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For the last part of the trip, I spent a couple of weeks at the Wildlife Health, Genetic and Forensic Laboratory (WHGFL), located some 15 km from Kota Kinabalu. I conducted sample collection from the gibbons housed there, and processed a batch of samples brought from DGFC to get familiar with the facilities in case we need to do the lab work there. To access the gibbon area, I had to go through training on how to use PPE (personal protective equipment) and establish proper working areas (Fig. 3). And, since WHGFL is a BSL-2 lab certified in accordance with laboratory standards set by the NIH and the CDC, I was also introduced to the standard operational procedures before starting to work on my samples. This was a great opportunity for me to learn how to work in a place where research is focused on the discovery, detection and monitoring of pathogens at the wildlife-human interface.



Fig. 3. Laboratory work at the WHGFL. Fit testing for the appropriate use of respirators (top left). Clean-up procedures in case of biological spills (top middle). Rescued gibbons housed in Potuki (top right). Preparing clean area before entering the cages (bottom left) and sample collection (bottom right). Photo credit: Liesbeth Frias and Izam (bottom right).



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**Acknowledgments**

I would like to express my gratitude to PWS and Prof. Matsuzawa for supporting this field trip. To our colleagues in Sabah: Sen Nathan (Sabah Wildlife Department), Benoit Goossens, Milena Salgado-Lynn and Danica Stark (DGFC), Marc Ancrenaz and Ahbam Abulani (HUTAN/KOCP), Jimmy Lee Chee Yen (Wildlife Health Unit), and Diana Ramirez (Wildlife Rescue Unit). To the wonderful staff and RAs at DGFC (specially Alut, Wan, Lee and Peter), and to Kenneth Keuk for staying in the forest on our behalf. To all the rangers from the Wildlife Rescue Unit (specially Izam and Tinju) that helped me out daily with the gibbons, and to the amazing lab girls: Cyrlen, Alwanie and Tini that welcomed me into WHGFL and showed me how everything worked. Special thanks to Andrew MacIntosh, for once again accompanying me into the forest and back.