

**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.)

2015.11.20

<b>Affiliation/Position</b>	Primate Research Institute/D1
<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>
2015.10.18 – 2015.10.31 (14 days)
<b>4. Main host researcher and affiliation</b>
Dr. Sen Nathan (Sabah Wildlife Department) and Dr. Benoit Goossens (Danau Girang Field Center)
<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>To say that getting to our field site this year was a bit complicated would be an understatement, but after much struggle, me and one of my supervisors, Andrew MacIntosh, managed to travel once again to Sabah, Malaysian Borneo. We stayed for a week at Danau Girang Field Centre (DGFC), a research facility administered by Sabah Wildlife Department and Cardiff University, located in the Lower Kinabatangan Wildlife Sanctuary in Sabah. The forest there is divided in lots with fragments of different sizes and levels of human impact, an ideal setting for my research project. As a field center, DGFC is quite a privileged place. Since they often receive students from around the world, they have a big student dormitory and a separate building for long-term visitors. They also have a basic laboratory, access to internet, a library and meals are provided twice a day.</p> <p>To me one of the most fascinating features of DGFC is the diversity of topics being researched in just one place. People do research in different schedules, depending on their targeted animal, so there is always movement at the station. For example, Andrew and I were the first to wake up and leave for sample collection in the mornings, followed by the orangutan-tracking team, leaving to find their subjects. After lunch, it was the turn of the teams setting up traps for reptiles and tracking small carnivores. The last team to leave the station was the one tracking nocturnal primates.</p> <p>We stayed at DGFC for a week with the purpose of collecting fecal samples from free-living primates. Our daily routine was leaving the station early in the morning, take a boat ride along the Kinabatangan River and look for groups of primates. During this trip we were targeting specific primates: silvered and red leaf monkeys, and pig tailed macaques. Once we spotted a group of monkeys we would get off the boat and look for our target: their feces. Looking for feces in the middle of the forest is not an easy task, especially when you can barely see the ground around your feet and have become breakfast to a horde of mosquitoes.</p>

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In the field some days are better than others. Sometimes the mornings were so foggy that we couldn't see the other side of the river and had to wait until it cleared up a bit. Others, we wouldn't see any primates. But all in all, we managed to collect around 100 samples, including a few collected by other researchers at the station. The orangutan-tracking group collected some samples for us, and the nocturnal primates team managed to collect a few from slow loris and tarsier.

We also managed to plan a day trip to Gomantong, where we were told we could find red leaf monkeys and pig-tailed macaques around the forest. We took advantage of the heavy rain to visit the Simud Hitam, the most accessible cave in the park. This cave was impressive, not only because of its dimensions but also because of the distinctive and pungent smell of bat guano (droppings). So there we were walking around the circuit, paying close attention to where we were stepping, and in my head I was picturing the worst scenario: falling in the pile of guano and being covered by cockroaches, later realizing I'd contracted a Nipah virus infection. But actually, a worse scenario that nobody warns people about at the entrance of the park is the potential risk of histoplasmosis, a fungus found in bat guano that can be released in the form of spores and settled in the lung if inhaled (luckily, masks were part of our collection kit). We looked for the red leaf monkeys during the brief windows of time we had without rain, and after following them for a while, and waiting some more, we finally got what we were looking for. There are at least 10 different primate species living together in Sabah, and up until last year we had collected from five of them. This year we added three more species to the list, the nocturnal primates and the red leaf monkey. So I would say that this fieldwork, albeit short, was very productive.

Back in Kota Kinabalu, I took a day to visit Lok Kawi Wildlife Park, a small park consisting of a zoological and a botanical park. This wildlife park is basically a small zoo, but it hosts mostly animal species found in Borneo, like orangutans, pygmy elephants, sun bears and rhinoceros hornbills. I also visited the Wildlife Health Genetic and Forensic Laboratory (WHGFL), Sabah's first Bio-security 2 laboratory opened only two years ago. This lab is part of a joint initiative between Sabah Wildlife Department, EcoHealth Alliance and Danau Girang Field Centre, and it's being used to look into wildlife health, but also analyze confiscated illegal animal products, using genetic tools.

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Jetty from where we embark to the station (upper left). Early morning in the Lower Kinabatangan River (upper right). Silvered-leaf monkey at dusk (mid left) and proboscis monkey during early morning (mid right). Pig tailed macaque on the very last day of collection (bottom left) and quick glimpse to a red leaf monkey (bottom right).  
Photo credit: Liesbeth Frias and Andrew MacIntosh (bottom left).



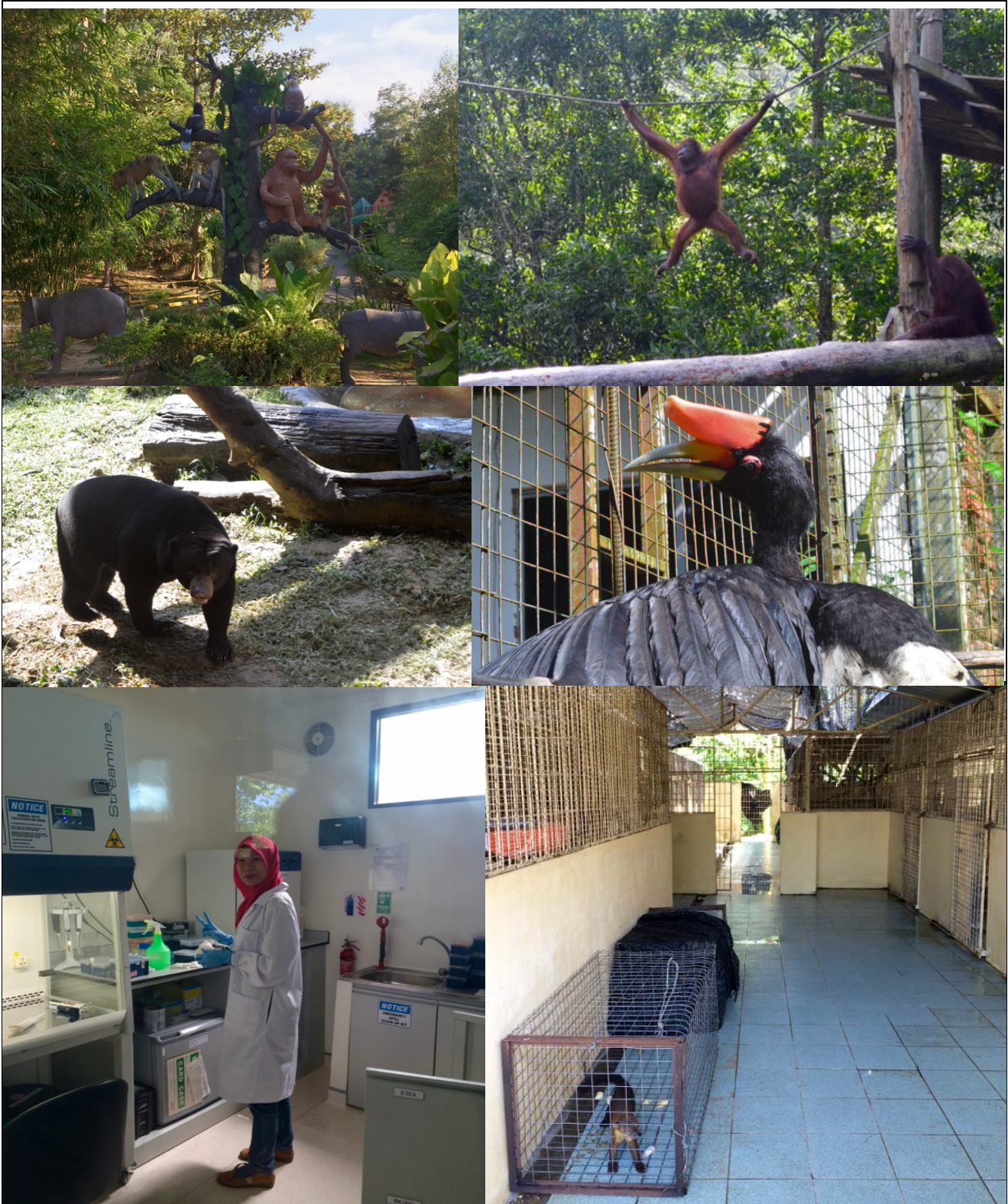
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Storing the samples back in the lab (upper left) and setting up the larvae cultures (upper right). Danau Girang Field Centre (bottom left) and the primate parasite team (bottom right). Photo credit: Liesbeth Frias and Masayo Nomoto (bottom right).



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Lok Kawi Wildlife Park (top and middle) and Wildlife Health, Genetic and Forensic Laboratory (bottom). Photo credit: Liesbeth Frias.

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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 and Danica Stark (DGFC), Marc Ancrenaz (HUTAN) and Henry Bernard (Universiti Malaysia Sabah) for their constant support and continuous collaboration. Special thanks to Andrew MacIntosh for accompanying me during this trip.