

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

	2016. 05, 30
Affiliation/Positio	Primate Research Institute/D2
Name	Cecile Sarabian

1. Country/location of visit
Gabon, Franceville
2. Research project
Testing infection-risk avoidance in Papionini and Hominini
3. Date (departing from/returning to Japan)
2015. 09. 09 – 2016. 01. 10 (123 days)
4. Main host researcher and affiliation
Dr. Barthelemy Ngoubangoye, CIRMF Primate Center Director, VDM, University of Lyon
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.

The Primate Centre at the CIRMF (Centre International de Recherches Médicales de Franceville) in Franceville, Gabon hosts 7 species of primates (chimpanzee, white-collared mangabey, sun-tailed guenon, vervet, long-tailed macaque, rhesus macaque, and mandrill) in different settings, from concrete to large rainforested enclosures.



Figure 1: The CIRMF is located in Franceville near the Bateke Plateau, where we can observe native and exogenous ungulate species such as oryx (bottom right). Mandrills at the CIRMF are hosted in large rainforested enclosures (bottom left).

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From September 2015 to January 2016, I conducted experiments on infection-risk avoidance at the CIRMF, with captive chimpanzees, semi-free-ranging mandrills and captive long-tailed macaques. This study was part of my PhD research on the evolution of pathogen and parasite avoidance behaviour.



Figure 2: Experimental setup for testing (from left to right) visual, olfactory and tactile cues of faeces avoidance in chimpanzees.

Results from this study will be presented at the 31st International Congress of Psychology in Yokohama in July, at the 4th Chimpanzees In Context Symposium (Sarabian & MacIntosh 2016 abstract available: <https://peerj.com/preprints/1851/>) and at the XXVI International Primatological Society Congress in Chicago in August. I am currently preparing a manuscript about my findings from the revulsion experiments conducted with the chimpanzees, that I hope would be accepted for publication in an academic journal.

In addition to my own project, I conducted a collaborative study on nematode contamination-risk avoidance in free-ranging mandrills with Ms. Clemence Poirotte from the University of Montpellier. Another manuscript from those findings is in preparation and we hope it to be ready for publication soon.



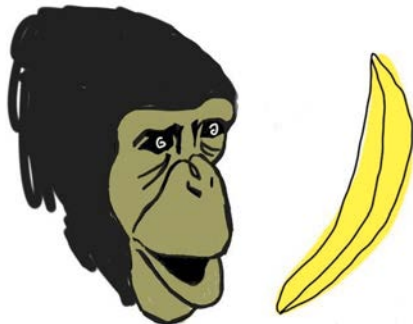
Figure 3: Mandrills are infected by several nematode species which are transmitted via ingestion of the infective larval stage of the parasite ~1 to 2 weeks after defecation (e.g. *Oesophagostomum* spp; *Trichostrongylus* spp; *Trichuris* spp.)

During this experience, I learnt how to be flexible about experimental design and how to adapt initial thoughts to the reality of the site conditions. While working with non-human primates in their native country, conservation is never far, and as such I learnt about mandrill reintroduction and visited the field site where mandrills from the CIRMF have been reintroduced 14 years ago in Bakoumba and which are now studied by a team of CNRS researchers from Montpellier, France (for more info see: <http://www.projetmandrillus.com/>). I have also witnessed the initial steps done toward the rehabilitation of the CIRMF chimpanzees and the agro-forestry project associated to it in large rainforested islands in South of Gabon.

As the Conservation Voices podcast host for The PrimateCast, I used the opportunity to pass by Libreville on my

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way back to meet with and interview conservation activist Luc Mathot, director and founder of the NGO Conservation Justice, based in Libreville, Gabon. Conservation Justice is part of a The EAGLE network working on wildlife law enforcement across Africa. The podcast was released last March and is available online at: <http://www.cicasp.pri.kyoto-u.ac.jp/news/podcasts/luc-mathot>.



THE PRIMATECAST



Figure 4: Luc Mathot while he was working at the “Projet Protection des Gorilles” supported by The Aspinall Foundation before joining EAGLE and founding Conservation Justice.

6. Others

Acknowledgements: I would like to thank PWS for supporting this research, my advisor Dr. Andrew MacIntosh for his time and advices, the Primate Centre staff at the CIRMF for their help, and my collaborators: Dr. Barthelemy Ngoubangoye, Ms Clemence Poirotte and Dr. Marie Charpentier.



Figure 5: The Primate Centre staff and Ms. Clemence Poirotte at the CIRMF in December 2015.