

Project Update April 2024

To address my last objective which is to 'determine how the presence of galls on trees influences the seed dispersal of these trees by lemurs, in terms of quantity of seeds dispersed and germination post-dispersal':

1. We started field data collection on June 19th 2023 and ended on November, 10th 2023. We followed three groups of lemurs (*Varecia variegata*) in three different sites. We collected data on lemur feeding and defecating events. Among all fruit-feeding trees, we selected *Allophullus* sp. as the target plant species given that this is the most preferred food during the fieldwork period. For each fruit-feeding of the target species, we assessed the presence of galls, collected fruit samples for a later seed germination survey, and leaf samples as mother tree individuals for the parentage analysis part. We also collected seed samples of *Allophyllus* sp. from lemur faeces. Then, we ran germination surveys of all categories of seed samples in fake Petri dishes, and under field temperature conditions.
2. At the end of November 2023, I started a collaboration with Inquaba Biotech, and ordered from them the molecular supplies and reagents such as DNA extraction and Polymerase Chain Reaction (PCR) kits and primers for the parentage analysis part. In collaboration with the University of Antananarivo, we can perform laboratory work at the Plant Molecular Biology Lab. We did DNA extraction of all samples from February until mid-March 2024. In total, we have 36 leaf samples (from mother tree individuals) and 310 seed samples (from lemur faeces) from which we extracted DNA. We are using microsatellite primers for PCR tests, but unfortunately, we couldn't have had any results yet, and the laboratory work is still ongoing.
3. I expect to finish the molecular analysis in June 2024. In the meantime, I am also entering and cleaning fieldwork data before data analysis.

Therefore, I still have some remaining ongoing activities (such as parentage analysis and data analysis), so, this project is not yet finished.

After accomplishing all remaining activities, I will send the final report.

Please, find attached three photos:

- Me doing PCR manip at the Plant Molecular Biology Lab, University of Antananarivo.
- My advisor and my team in the field.
- *V. variegata* feeding fruits on *Allophyllus* sp. tree (the target plant species)



