Project Update: April 2021

First, the report. I have just completed the 9th sampling month. Everything is going well, and I believe that the expected date to finish sampling will be met (July 2021). Samples are also being analysed without issues, and I'm preparing to start the genomics part of the work (DNA extraction from bats and sequencing). Here is a summary of the data I have so far:

- 315 bats from 22 species and four families have been captured; the same number of pollen samples has been collected and analysed. Out of the bats captured, 85 were specialised nectar consumers, but several frugivorous and insectivorous bats also carried pollen, which leads to several novel reports of interactions.
- So far, 46 plant species were consumed, *Caryocar brasilense*, *Bauhinia* spp, *Hymenaea* spp, *Inga* spp and *Psittacanthus robustus* being the most common. I will soon be able to start formal network analysis to assess its structure, and which are variables that drive network structure.
- The endangered nectar bat Lonchophylla *dekeyseri* has been captured 15 times. So far, I found that it feeds mainly on species of the genus *Bauhinia*, and that it seems to be more specialised than other nectar bat species that have a more diverse diet. I will be able to address this better once I start to reconstruct the network. Moreover, I have also collected tissue samples from all *L. dekeyseri* specimens. These will be used for DNA extraction and sequencing, alongside those of other species. This will provide certainty in their identification (specimens were not collected for cranial measurements) and provide more DNA sequence data for online databases.
- I have discovered a novel and important resource species for bats in the rainy season: *Psittacanthus robustus* (Loranthaceae), an abundant mistletoe species that, surprisingly, is not chiroterophilous, but rather pollinated by birds. I have studied this species in-depth (nectar production, visitors, mating system) and found that it also produces nectar by night and that it feeds several bat species, including the endangered *L. dekeyseri*. During the rainy season, it is actually one of the species that bats use the most. This previously unknown interaction has several ecological and conservational implications. I am currently preparing and analysing the data regarding this parallel study.