Project Update: July 2023

The study so far has yielded very interesting results. On the one hand, although somewhat unexpected, was the fact that there was a very low richness of amphibians and reptiles, totally contrary to our expectations. Only eight frogs and one gecko were found. We are currently analysing their DNA and evaluating their taxonomic status with high expectations of finding new species. However, these results should be analysed within the temporal and spatial context of the study: we only sampled during June and July (months with little rainfall) and 65 bromeliads (from 13 different trees).

I also investigated invertebrates, focusing on the family Formicidae: ants ; the richness and diversity of invertebrates was overwhelming! The data yielded 41 species of ants belonging to 22 genera, some of which were recorded for the first time in canopy individuals! Based on these data and supplemented with computational modelling (rarefaction), canopy ant richness could increase to at least 55 species in the Mashpi-Tayra canopy.

Finally, I used environmental variables to understand how the canopy ant community is assembled. This analysis seeks to explain which abiotic factors most influence the biodiversity of ants present in the Mashpi-Tayra canopy. The variables analysed were internal temperature of the bromeliad, external temperature, height above sea level and height from the ground. The model obtained indicates that certain variables have statistical support, which agrees with several hypotheses that would explain the fantastic biodiversity of ants in the canopy.