

## Project Update: December 2018

The dry season came, and the hot days on the forest came too! I made more 10 expeditions to the camps of BDFFP – Biological Dynamics Fragment Forest Project in the city of Presidente Figueireido- Brazil. In this season, I started to put the playback experiment which is to analyse how aerial insectivorous bat activity is affected by a owl vocalisation. I bought two JBL Clip 2 and extra batteries to play vocalisations of owl species every 15 minutes from 18:00 PM to 6:00 AM (Figure 1). The owl species are known to occasionally feed on bats, I choose five species of Amazon owl. These playback experiment was played in every type of forest: secondary forest (matrix), fragment forest and continuous forest in at least 24 nights per type of forest.



**Figure 1.** The playback experiment in an amazonian secondary forest at Dimona camp,

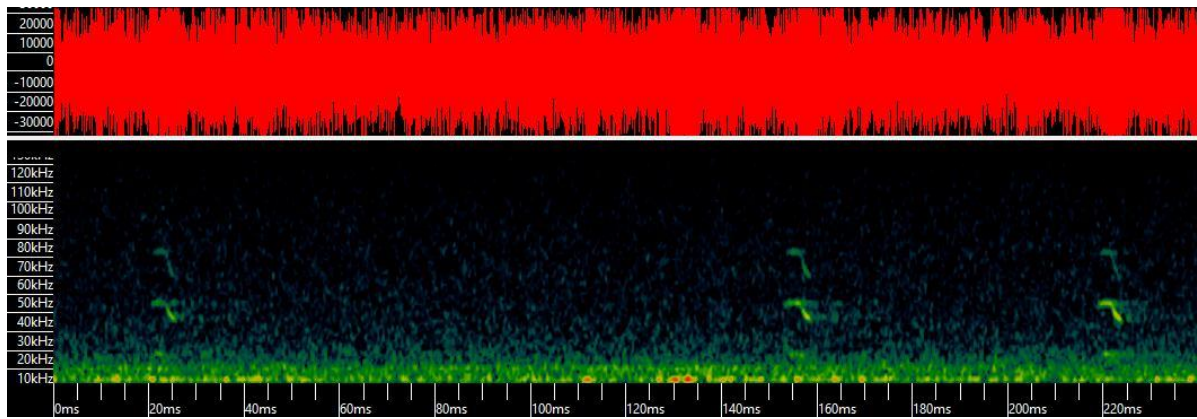
At the same time that I did the playback experiment, I put Malaise traps to collect aerial insects availability of every type of forest. In each night, I put four Malaise traps and I collected the insects every 12 hours (Fig. 2). I made this method of collecting every 12 hours because I can separate the nocturnal insects to the diurnal insects. The insects are stored in alcohol 70 in plastic pots. The identification will begin in the next year, and it will be made by a Master student of Zoology of Federal University of Amazonia – UFAM, Karina Kethleen. Insects identifications will be made up to the family level because of the high volume of data.



**Fig 2.** My field team, Ocírio-Juruna the field technician, Karina the Master student and me Giulliana Appel in a Malaise trap at a secondary forest of Cabo Frio camp, BDFFP, Presidente Figueiredo city, Brazil.

I started the bat identification of the ultrasound recordings, and I analysed 48 nights of sampling. A curious fact was to find the calls of a rare bat species (*Pteronotus gymnotus*) at a fragment forest, in Porto Alegre camp (Fig 3). Until now, these the only recording that I observed of all type of forests, but I hope to find more ecolocations calls of these species in the continuous forest.





**Fig 3.** Oscilogram and spectrogram of *Pteronotus gymnonotus* search-phase calls found in a fragment forest of Porto Alegre camp, BDFFP, Presidente Figueiredo city, Brazil.

The next step will be to repeat all this sampling in the rainy season of 2019, the next expeditions will begin on January 2019 and will be finished in May 2019. We believed that the season influence strongly the insects, therefore it will be necessary to collect the insects in the rainy season of the next year.