Project Update: April 2020

The sampling of epigeic springtails was carried out and concluded in December 2019 in the experimental fertilisation plots of the Ecological Reserve of the Brazilian Institute for Geography and Statistics (RECOR-IBGE), Brasilia, Federal District (Figure 1). The study site represents the most common physiognomy found in the cerrado biome, known as cerrado *stricto sensu*, a woodland savanna type characterised by a continuous grass layer and continuous grassy layer and a tree and shrub layer with 20% to 60%. The samplings consisted of installing three pitfall traps in each nutrient addition (treatment) and control plots (Figure 1 and 2), which total 15 plots (3 replicates of each treatment and control).



Figure 1. Location of experimental fertilisation plots at RECOR-IBGE, Brasília, Federal District, Brazil (coordinates UTM – 23L).



Figure 2. Fertilization experimental plots in the woodland savanna.

Pitfall traps consist of a 500 ml plastic pot buried at ground level. The pitfall traps were filled with 70% alcohol and protected from the rain with styrofoam plates fixed to the ground with wooden sticks. The traps remained in the field for 7 days and then removed (Figure 3). Soil (0-10 cm) and leaf litter samples were collected at the same points where the traps were installed.



Figure 3. Pitfall traps installation.

In January 2020 I dried and grounded litter and soil samples to weigh and forward them for chemical analyses. Sample weighing will be carried out in April 2020 and will soon be forwarded for stable isotope analyses of C and N (δ^{13} C and δ^{15} N). Soil subsamples has already been sent for macronutrient analysis. In January 2020, I started the pitfall trap inspections to separate the springtail specimens and in March 2020 I started the morpho-species separation that will be used for isotopic analysis (Figure 4). The morpho-species preparation for isotopic analysis will be carried out in the coming months.



Figure 4. (A) Inspection of the pitfall traps to separate the springtails. (B) Separation of springtail morphospecies for isotopic analysis (in a home-office setting because of COVID-19).