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Seed predation and germination of *Peltogyne gracilipes* (Ducke) in three forest types on Maracá Island, Roraima, Brazil

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Seed predation of *Peltogyne gracilipes* was investigated in three forest types: Peltogyne-rich forest (PRF), Peltogyne-poor forest (PPF) and Forest without *Peltogyne* (FWP). Seed experiment were performed in 12 plots of 40m x 250m of the Biodiversity Research Program (PPBio) installed in the eastern portion of Maraca Island, four plots per forest type. In each plot, groups of 30 seeds (n= 4) were randomly arranged. All seeds were marked with permanent ink so that they were recognized during the evaluation. After ten days, the number of seeds predated (seeds removed and/or attacked by insects) was assessed. Furthermore, we observed that some seeds that remained and suffered no attack were germinating and it also was recorded. Results were analyzed by ANOVA (single factor) and compared by Tukey test (α=0.05). The mean (± standard deviation) and percentage of predated seeds were respectively 14 (±1.22); 12% (PRF), 101 (±1.5); 84% (PPF) and 27.25 (±7.59); 23% (FWP), so the highest seed predation occurred in PPF (P<0,0002; n=4). *P. gracilipes* seeds in general were predated by leaf-cutter ants (*Atta cephalotes* and T*rachymyrmex* sp.*)* and beetles (Curculionidae and Nitidulidae). The mean (± standard deviation) and percentage of germination in relation the number of non attacked seeds were 79.75(±10.47); 75% (PRF), 13.75 (±2.60); 72% (PPF) and 6.25 (±3.11); 7% (FWP). Germination in FWP was lower than in the other two forests (p<0.001). As the germination rates were similar in PRF and PPF, seed predation seems to be a key factor to explain the great success in seedling recruitment of *Peltogyne* in PRF than PPF. In FWP, seed predation was not the main factor that inhibited recruitment of *Peltogyne* seedlings, other factors such as soil conditions and/or light should be involved.