SPATHODEA CAMPANULATA (BIGNONIACEAE): FLOWER VISITORS AND NECTAR CHARACTERISTICS

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Spathodea campanulata is an exotic plant often used in arborisation of Brazilian cities. Its flower resources are toxic for insects, including bees. In order to investigate this we studied a tree located at Embrapa Semiárido (Petrolina) in July-August 2017-2018. In 2017, floral visitors were observed during intervals of 15min, from 6h30min up to 11h45min or 15h45min. In 2018, we registered the amount and diversity of insects found dead inside flowers. From 8h to 15h30min, the nectar volume (V) was measured with a syringe and the amount of soluble solids (SS) with a refractometer. Air temperature and relative humidity were obtained using a termohigrometer. In 29h of observation, we registered bees, wasps, butterflies and humming birds as visitors. The most frequent was *Trigona spinipes* in the period of 7h30min up to 10h15min, although it was present during all day (in average: 13.68 ± 12.27 individuals, n= 260). *Frieseomelitta doerderleini* (0.42 ± 0.84, n= 8), and wasps (1.16 ± 1.38, n= 22) were less frequent. In 360 old flowers, we counted 651 dead insects. Most of them (97.54%) were bees: 481 (75.75%) *T. spinipes;* 100 (15.75%) *F. doederleini*; 40 (6.30%) *Partamona* sp.; 13 (2.05%) *Trigonisca* sp. and 1 (0.16%) *Apis mellifera.* Moreover, 12 wasps (1.84%), 2 ants (0.31%) and 2 flies (0.31%) were also registered. Average temperature was 28.66 ± 2.91ºC and relative humidity, 53.27 ± 8.82%. The averages for nectar V and SS were 0.46 ± 0.27 mL, n=70, and 20.45 ± 9.32 %, n=74, respectively. These parameters varied inversely along the day (V decreased and SS increased), probably due to nectar collection by insects and evaporation (because heating and wind). These differences were significant (Kruskal-Wallis, $p < 0.005$ for both). Results confirm nectar is toxic for bees (especially stingless bees), and this may be harmful where these trees are abundant.

Keywords: toxic plants for bees; African tulip tree, toxic nectar

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