Biodiversity of Curculionidae (Coleoptera) in cerrado and riparian forest fragments and trap efficacy in SW Brazil

Gabriel Paiola¹; Carlos A. H. Flechtmann¹

The Brazilian cerrado has a rich and largely understudied fauna of Scolytinae and Platypodinae (Curculionidae). This group has good bioindicator species of environmental conditions. They are commonly surveyed with traps, and the model used influences trapping efficacy. The objectives of this experiment were to determine and compare the biodiversity of Curculionidae in two adjoining fragments of cerrado physiognomy cerradão (CE) and riparian forest (RP) (Selvíria, Mato Grosso do Sul, Brazil), and to compare the efficacy of a standard flight intercept trap (FIT) widely used in Brazil (modified model ESALQ-84) with the window trap. Results are based on weekly trappings from April to June 2018. We trapped 38 species of Scolytinae, three of Platypodinae, two of Bostrichidae, 10 of Cerambycidae and one species of Cleridae. Species richness was similar between vegetation types, but abundance of trapped species varied. For the most abundant species, Ambrosiodmus opimus, Cryptocarenus brevicollis, Cryptocarenus diadematus, Hypothenemus javanus (Scolytinae), Compsa quadriguttata (Cerambycidae) and Megaphloeus mucoreus (Cleridae) were significantly more trapped in CE, and the only species more trapped in RF were Euplatypus segnis and Teloplatypus ratzeburgi (Platypodinae). It is worth mentioning that Platypodinae are usually more abundant in moister environments, such as the riparian forest fragment. All analysed species that showed statistically significant differences were more catched in the window trap: A. opimus, C. brevicollis, C. diadematus, Hypothenemus bolivianus, H. javanus, Premnobius cavipennis, Xyleborus affinis, Xyleborus ferrugineus, Xyleborus spinulosus (Scolytinae), E. segnis, T. ratezeburgi, Micrapate brasiliensis (Bostrichidae) and Neoclytus pusillus (Cerambycidae). No species was significantly more trapped in the FIT. It is important to point out that all *E. segnis* and all *T. ratzeburgi* specimens trapped in the riparian forest fragment were in window traps.

Palavras-chave: ambrosia beetles; Platypodinae; window trap

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