

Host Colonization and Host Specificity of Scolytinae (Coleoptera, Curculionidae) in Brazil

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Scolytinae beetles (Coleoptera, Curculionidae) are a group of borers mainly of forest importance. Despite their importance as pests and even as bioindicators, aspects of their biology have received little attention in Brazil. Important aspects are host specificity and host plants in Scolytinae. We studied the host specificity of some Scolytinae ambrosia beetles to 26 different native cerrado tree species, selecting species with no known toxicity to Scolytinae, and some with tannin (*Stryphnodendron polyphyllum*, Mimosaceae) or latex (*Mabea fistulifera*, Euphorbiaceae) toxins. Polyphagous species are considered to colonize host species with no toxins, while oligophagous species specialize in hosts with toxin content. The experimental site was a well preserved 60-ha cerrado fragment (20°20'09.56"S 51°24'38.59"W) in Selvíria, state of Mato Grosso do Sul, Brazil. In February 2011 we cut 1- to 2-m long branches 1- to 6 cm in diameter, and left them exposed to Scolytinae attack inside the fragment for 5 weeks. In the lab, we opened all branches, and beetles were counted and determined. The host species with the highest number of ambrosia beetle pinholes were *Anadenanthera falcata*, *Andira vermifuga* (Fabaceae), and *Stryphnodendron polyphyllum* (Mimosaceae), while the least attacked were *Siparuna guianensis* (Monimiaceae), an undetermined Bignoniaceae vine, and *Coccoloba latifolia* (Polygonaceae). Species in 14 genera were found colonizing the branches, *Ambrosiodmus*, *Coccotrypes*, *Coptoborus*, *Cryptocarenum*, *Dryocoetoides*, *Hypothenemus*, *Premnobius*, *Pityophthorus*, *Pseudothysanoses*, *Theoborus*, *Tricolus* and *Xyleborus*, encompassing 30 species. There was no significant difference in abundance among tree species for the most abundant beetle species. We also grouped the host trees within their family rank, and again there was no statistically significant difference in beetle abundance. Results indicate that all beetle species were polyphagous, and able to colonize all studied tree hosts.

Keywords: ambrosia beetles; cerrado; polyphagy.