



XIII Congresso de ECOLOGIA

III International Symposium of Ecology and Evolution

Múltiplas ecologias: evolução e diversidade

08 a 12 de outubro de 2017 • UFV - VIÇOSA | MG

VERTICAL DISTRIBUTION OF THE SAPROXYLIC BEETLE FAUNA IN A TROPICAL RAINFOREST

Carlos A. Corrêa^{1,2*}, Letizia J. Migliore^{1,3}, Cinthia B. Costa-Milanez¹, Gianfranco Curletti⁴, Sérgio P. Ribeiro¹.

1. Laboratório de Ecologia Evolutiva de Insetos de Dossel e Sucessão Natural, Departamento de Biodiversidade, Evolução e Meio Ambiente, ICEB, Universidade Federal de Ouro Preto, Ouro Preto, 35400-000, Brasil; 2. Laboratório de Controle Biológico de Insetos, Departamento de Entomologia, BIOAGRO, Universidade Federal de Viçosa, Viçosa, 36570-900, Brasil (present address); 3. Laboratório de Coleoptera, Departamento de Entomologia, MZUSP, Universidade de São Paulo, São Paulo, 04263-000, Brasil (present address); 4. Museu Civico di Storia Naturale Entomologia, Parco Cascina Vigna, Carmagnola Italy. *Correspondence to carlos.cbio.2016@gmail.com

Tema/Meio de apresentação: Ecologia de comunidades / Pôster

The ecological conditions change dramatically between the upper canopy and understorey of a tropical forest, and this pattern has consequences to the insect herbivores. Saproxylic beetles are very important for the colonization and decomposition of woody materials in the forest, but although well studied in temperate forest, it is hardly studied in preserved tropical forest. This work evaluated the influence of vertical stratification on the colonization of trunks by saproxylic beetles, testing the hypothesis that abundance, richness and composition of beetles vary according to the habitat. The study was carried out in Rio Doce State Park (PERD) between October 2013 and February 2014. The experiment was conducted at three points equidistant in 100m. During the experiment, 15 freshly cut trunks (one meter long and 40 centimeters in diameter each) of *Anadenanthera colubrina* (Vell) Brenan (Fabaceae) were exposed per point, a total of 45 trunks. Each point had three sample units: canopy, ecotone and understorey. The trunks were removed and replaced at intervals of 40, 80 and 120 days. A total of 816 beetles emerged from the trunks distributed in 35 species among different habitats. The saproxylic beetle richness were greatest in the canopy (GLM: $F_{(2,36)}=10.59$; $p < 0.05$), with no significant differences between the ecotone and understorey. However, the forest stratification did not influence in the saproxylic beetles abundance between the habitats (GLM: $F_{(2,36)}= 1.657$; $p= 0.20$). Beetle composition was very similar between the ecotone and understorey, being sub-samples of the canopy (NMDS: Stress = 0.1027), which obtained the most diverse beetle fauna. These results suggest that habitat induce unequal colonization of saproxylic beetles within the forest. The preference for habitats most exposed to light may occur as a function of insect metabolism, which depends on high temperatures for better larval development.

The authors thank CAPES/PELD and PIBIC/CNPq for providing grants and scholarships.