

SCIENTIFIC NOTE

First Record of Species of Cerambycidae (Coleoptera) in Cardeiro (*Scleronema micranthum*) (Bombacaceae) in the Central AmazonRAIMUNDA ABREU¹, BEATRIZ RONCHI-TELES¹, MIGUEL MONNÉ², BASÍLIO VIANEZ¹¹Instituto Nacional de Pesquisas da Amazônia – INPA, Av. André Araújo, 2936, Aleixo, C. postal 478, 69011-970, Manaus, AM; raiabreu@inpa.gov.br; ronchi@inpa.gov.br; basilio@inpa.gov.br²Univ. Federal do Rio de Janeiro, Museu Nacional, Rio de Janeiro; monne@uol.com.br

Edited by Roberto A Zucchi – ESALQ/USP

Neotropical Entomology 38(3):432-433 (2009)Primeiro Registro de Cerambycidae (Coleoptera) em Cardeiro (*Scleronema micranthum*) (Bombacaceae) na Amazônia Central

RESUMO - Foi avaliada a ocorrência de Cerambycidae (Lamiinae), em amostras provenientes de troncos e galhos de cardeiro (*Scleronema micranthum*), espécie florestal da Amazônia Central. As amostras ficaram expostas à biodeterioração durante 24 meses no solo da própria floresta, quando foram realizadas coletas de adultos e larvas e conduzida a avaliação do ataque. De um total de 643 cerambycídeos coletados, 606 eram imaturos e 37 adultos. Foram coletadas duas espécies de Acanthoderini, *Psapharochrus longispinis* (Bates) (17 espécimes) e *Steirastoma melanogenys* White (17 espécimes), e uma espécie de Onciderini, *Jamesia globifera* (Fabricius) (três espécimes). A maioria das larvas concentrou-se na casca dos troncos e dos galhos e as pupas e os adultos, no alburno.

PALAVRAS-CHAVE: Madeira do Amazonas, serra-pau, besouro, Lamiinae, levantamento

ABSTRACT - The occurrence of Cerambycidae (Lamiinae) was evaluated in trunk and branch samples of cardeiro (*Scleronema micranthum*), a forest species from the Central Amazon. Samples were exposed to biodegradation for 24 months on the forest soil, during which adults and larvae were collected and their attack was evaluated. From a total of 643 cerambycids collected, 606 were immatures and 37 were adults. Two species of Acanthoderini, *Psapharochrus longispinis* (Bates) (17 specimens) and *Steirastoma melanogenys* White (17 specimens) were collected, as well as one species of Onciderini, *Jamesia globifera* (Fabricius) (three specimens). Most larvae were found in the bark of trunks and branches, while pupae and adults were mainly found in the sapwood.

KEY WORDS: Amazon wood, beetle, Lamiinae, survey

This study was carried out in order to evaluate the occurrence of insects in the family Cerambycidae in wood and branch samples (disks) of *Scleronema micranthum* (Bombacaceae) exposed to biodegradation for two years.

The experimental site was located on BR 174 (a road that connects the cities of Manaus and Boa Vista), km 50, at the ZFII Experimental Station, Instituto Nacional de Pesquisas da Amazônia (INPA), in Manaus, state of Amazonas, Brazil. Samples were obtained from five trees: 180 disks measuring 30 cm each were removed from the trunk, and 60 samples measuring 60 cm each were taken from the branches. Upon cutting, samples were randomly arranged in a primary forest in Central Amazon from April 2002 to April 2004. Although samples remained in the field for two years, the presence of Cerambycidae adults was only detected from June 2002 to February 2003, corresponding to 10 months

of experimentation. Insect collections, including adults and larvae, were made directly from the samples (15 disks and five branches) that were randomly removed from the forest every two months and cut into small pieces. Simultaneously, observations were made on the size, direction, and width of galleries, diameter of exit holes, and type of residue produced by the larvae.

A total of 643 cerambycids were collected (606 immatures and 37 adults). Based on the adults, three species (Lamiinae) were collected, *Psapharochrus longispinis* (Bates) (17 specimens), *Steirastoma melanogenys* White (17 specimens) (Acanthoderini) and *Jamesia globifera* (Fabricius) (three specimens) (Onciderini). *Jamesia globifera* is distributed from Costa Rica to Brazil (Amazon region), Peru and Bolivia (Bates 1865, Monné 2002); *P. longispinis* occurs in the north of Brazil (state of Pará), Peru, French Guyana and the Eastern Andes (Bates 1861, Monné & Hovore 2005); *S. melanogenys*

can be found from Nicaragua to Panama and in the north of South America (Bates 1862, Monné 2001). The third species was also recorded in the canopies at 45 m above ground level in our study area in state of Amazonas (Martins *et al* 2006). Five hosts have been recorded for *J. globifera* (Tavakilian *et al* 1997, Monné 2004) and *S. melanogenys* (Gara & Onore 1989, Tavakilian *et al* 1997, Monné 2004).

Not all samples contained insects. Among the 180 disks sampled, immature larvae were found in 51 disks and adults were found in 14 disks; among the 60 branches sampled larvae were found in eight branches and adults in seven branches. Although insects were found in a small number of samples, more than 50% of the samples showed evident signs of attack. Probably the samples were left in the forest for too long and the insects had enough time to complete their life cycle and leave the samples.

Attack by most larvae was concentrated in the bark. Generally, larvae penetrated the sapwood before turning into pupae; adults were also found in the sapwood. Most species that use logs or branches as hosts feed under the bark and only penetrate the wood to become a pupa. However, there are also some species that spend more time feeding in wood than in bark (Chemsak *et al* 1992).

During the evaluation, no differences were observed in characteristics of the galleries built by the larvae. The galleries in bark and wood (ranging from 2.5 cm to 15.0 cm in length, 0.7 cm to 3.0 cm in width, and 5.0 mm to 8.0 mm in diameter) were not deep and were all tangentially oriented in the disks. The residue produced by the larvae consisted of clusters of small fibers which usually clogged the galleries.

Adults of *P. longispinis* and *S. melanogenys* were found in the samples four months after the experiment was set up. It is possible that these species were already in the trees before they were cut down and completed their cycle during the remainder of the experiment, or they may have a variable life cycle, since they were also found until the tenth month of the experiment. Cerambycid biological cycle is variable throughout the year and is influenced by temperature, humidity, wood type, age and geographic and weather conditions (Chemsak *et al* 1992). However, tropical species are less subjected to seasonal variations than species from temperate zones, and can usually breed continuously; consequently, all life stages may occur in the same piece of wood (Monné & Hovore 2005).

The cerambycids found in *S. micranthum* show a potential for biodegradation. Their attack on this host plant may have been triggered by plant-derived attractive substances or by the host susceptibility and nutritional value. Therefore, future

investigations are required to understand the interactions among these cerambycids and *S. micranthum*.

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Received 10/VIII/07. Accepted 18/III/09.