

Beetle Borers (Coleoptera) in fig trees (*Ficus carica*) with Ceratocystis canker in southern Brazil

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The largest fig tree orchards in Brazil are located in the southern states of Minas Gerais and São Paulo, where the most planted variety is Roxo de Valinhos. Ceratocystis canker, *Ceratocystis fimbriata*, is the most important fig tree disease, and it is usually associated with beetle borers. The objective was to recognize the beetle species associated with diseased trees. One sampled orchard (1.2 ha) was located in Valinhos, São Paulo (22°57'40.37"S 47°01'33.65"W); trees were 15-yr old, with 30-40 trees killed/yr the last 7 years. Diseased/attacked trees were eradicated. The other orchard (11 ha) was situated in São Sebastião do Paraíso, Minas Gerais (20°53'16.16"S 46°50'56.23"W); trees were 7-yr old and diseased trees started to appear 2 yr before. Application of kerosene to tree trunks appeared to control the development of beetle borers. Trunks, branches, leaves and fruits of diseased trees dried, and pinholes with frass were observed. One healthy and five dying trees from Valinhos, and another healthy plus three dying trees from SSP were examined in December 2012 and January 2013, respectively. In Valinhos associated species were *Hypothenemus pubescens*, *H. crudiae*, *H. eruditus* and *H. obscurus*, *Phloeotribus picipennis*, *Xyleborus posticus* and *X. ferrugineus* in Scolytinae, and *Xyloperthella picea* and *Xylopsocus capucinus* in Bostrichidae. In SSP these were *Hypothenemus californicus*, *Theoborus villosulus* and *X. ferrugineus* (Scolytinae), *Marshallius bonnelli* (Molytinae), *Copturus* sp. (Conoderinae), and *Taeniotes monnei* and *Psapharochrus jaspideus* (Cerambycidae). Live young stages of *H. obscurus*, *T. villosulus*, *X. posticus*, *M. bonnelli* and *T. monnei* were found inside trunks and branches. This is the first report in fig trees of *H. pubescens*, *X. posticus*, *X. capucinus*, *T. villosulus* and *T. monnei* worldwide, *X. picea* in the western hemisphere, and of *H. crudiae*, *H. obscurus* and *H. eruditus* in South America. *Marshallius bonnelli* proved to be able to attack healthy trees.

Keywords: ambrosia beetles, Scolytinae, Curculionidae