SCIENTIFIC NOTE

TEAK, TECTONA GRANDIS L.F. (LAMIACEAE), AS A NEW HOST PLANT OF STEIRASTOMA BREVE (SULZER, 1776) (COLEOPTERA: CERAMBYCIDAЕ)

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Forest plantations are especially at risk to injuries caused by insects at some point in their development, particularly leafcutter ants, defoliating caterpillars, and subterranean termites (Zanuncio et al. 1998; Zanetti et al. 2000; Santos et al. 2011). Less frequent, however, is the attack caused by longhorn beetles (Coleoptera: Cerambycidae), one of the most species-rich families of beetles in the tropics, with approximately 35,000 described species worldwide (Tavakilian and Chevillotte 2016). The species of this group maintain close relations with the host plants they use for their subsistence (Tavakilian et al. 1997; Monné et al. 2012), with recognized importance in cycling of ligno-cellulosic material in forest ecosystems (Costelo et al. 2011), as well as excellent indicators of the conservation state of an ecosystem (Monné et al. 2012).

Damage by cerambycid larvae vary with the species, being commonly constituted by galleries in the subcortical region surrounding the trunk, enlarged perforations, or longitudinal and expanded elliptical galleries within the wood. They are thus xylophagous or lignivorous, trunk or root borers (Costa Lima 1955). Larvae of many species of Cerambycidae develop in rotting trees in intermediate decomposition, with advanced wilt, newly cut down, or living (Hanks 1999; Silva Neto et al. 2011). Adult Cerambycidae are generally phytophylous and less harmful to their hosts by feeding on flowers, sugary substances and plant exudates, pollen, or fruit pulp (Linsley 1959). However, an exception is adult females of Oncideres Lepeletier and Audinet-Serville, 1830 (Lamiinae: Onciderini), which girdle branches and make holes in the branches and twigs of host trees in which they lay eggs (Di Iorio 1994; Paulino Neto et al. 2006).

Tectona grandis L.f., 1782 (Lamiaceae), commonly known as teak, is an introduced species in Brazil, whose evident morphological characteristics are arboreal size, deciduous, a rectilinear trunk that is thick and cylindrical up to 40 m high, brown, scaly bark with longitudinal fissures, ovate, simple leaves opposing each other and 6–75 cm long and 8–45 cm wide, with large, terminals inflorescences with the dry drupe fruit type (Lorenzi 2003; Adjonou et al. 2010). The tree is native to Asia. The commercial value of its wood highly appreciated in many countries, so it is widely cultivated in the tropics. In Brazil, commercial plantations reached 87,000 hectares in 2014 (IBA 2015).

This study aims to report the first occurrence of Steirastoma breve (Sulzer, 1776) in teak plantations and characterize the damage caused by this beetle.

In October 2015, 16 3.5-year-old teak trees were found dead in commercial plantations in São José de Quatro Marcos (15°37′10″S, 58°10′36″W, 223 m elevation), Mato Grosso, Brazil (Fig. 1A). These trees had holes and ejected frass along the trunk (Fig. 1B). Portions taken from the trunk of two trees were collected and sent to the Laboratório de Fitossanidade do Instituto Federal de Educação, Ciência e Tecnologia de Mato Grosso (IFMT), Cáceres, Mato Grosso state, Brazil. Part of the collected samples in the field were sectioned in several cutting planes, and some were left to complete development of the adult insects in an incubator at 25 ± 1°C, 70±10 RH, and 12-hour photophase.

The emergent woodborers found were identified as S. breve This species is usually associated with Cecropia sp. (Urticaceae) and Wisteria sp. (Fabaceae) as natural hosts (Monné 2004). It has been reported affecting cacao, Theobroma cacao L. (Malvaceae), in Ecuador, Guadeloupe, Grenada, Martinique, Venezuela, Suriname, and Trinidad (Entwistle 1972; Sanchez and Caprikes 1979) and more recently in Rondônia, Brazil (Mendes and Garcia 1984).

The adults of S. breve have a grayish color with black marks on the elytra and black legs (Fig. 1C). They measure between 15 and 20 mm long. In the males, the first pair of legs are laterally hairy. The antennae are longer in males than in females (Sanchez 2011; Nearns et al. 2016). The larvae are legless, the head is strongly sclerotized, and the thorax shows the prothorax as the most developed segment and in general is strongly sclerotized dorsally (Fig. 1D) (Costa Lima 1955).