

Supplementary Material

Article: Semiochemical-Based Attractant for the Ambrosia Pinhole Borer *Euplatypus parallelus*

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Authors: Hugo L. Rainho, Weliton D. Silva and José Maurício S. Bento

Correspondence: Hugo L. Rainho, Department of Entomology and Acarology, University of São Paulo, Piracicaba, SP 13418900, Brazil. E-mail: hugo.lleoncini@gmail.com

Infestation of African Mahogany by *Euplatypus parallelus* in Brazil

An outbreak of *Euplatypus parallelus* was verified in October 2017 in a 40-ha plantation of *Khaya senegalensis* (Desv.) A. Juss. (Meliaceae), located in the city of Inocência, in the Brazilian state of Mato Grosso do Sul (19°13'19"S 52°09'31"W; 532 m altitude). Trees were 15-year-old and had 20-cm diameter at breast height and presented typical symptoms of dieback wilt syndrome (Figure S1a).

In a chronological order, the symptoms initiated with longitudinal fissures along the bark of trunk followed by resin overflow (Figure S1b). Next, bark and surface of xylem presented necrotic lesions; leaves became chlorotic before they abscised from trees. Finally, branches and other tree parts were progressively wilting until the death of the tree.

In addition, many pinholes were observed throughout the bark as well as accumulation of frass on the tree base due the boring activity of adult *E. parallelus*. Beetles' pinholes concentrated in the first 50 cm from the trunk base and they progressively decreased in number until 3 m high. On the wall of the galleries, we noticed a characteristic black-staining caused by some saprophytic fungi, which was likely inoculated by *E. parallelus*.

The symptoms described above were recorded from two mahogany trees, which were monitored from the first symptoms until their death. The death of trees occurred within 10 days, indicating the existence of highly aggressive phytopathological disorder. The association of multiple physiological stressors on mahogany trees from that region (e.g., severe drought and injuries on woody tissues due forestry practices) likely triggered the attack of *E. parallelus* that culminated with the dieback wilt syndrome. Reduction of African mahogany stands in that location due the syndrome has been estimated at ~ 1.3% (i.e., ~ 200 trees), which corresponds to economic losses of US\$ 65.573,77 in the Brazilian market [6].

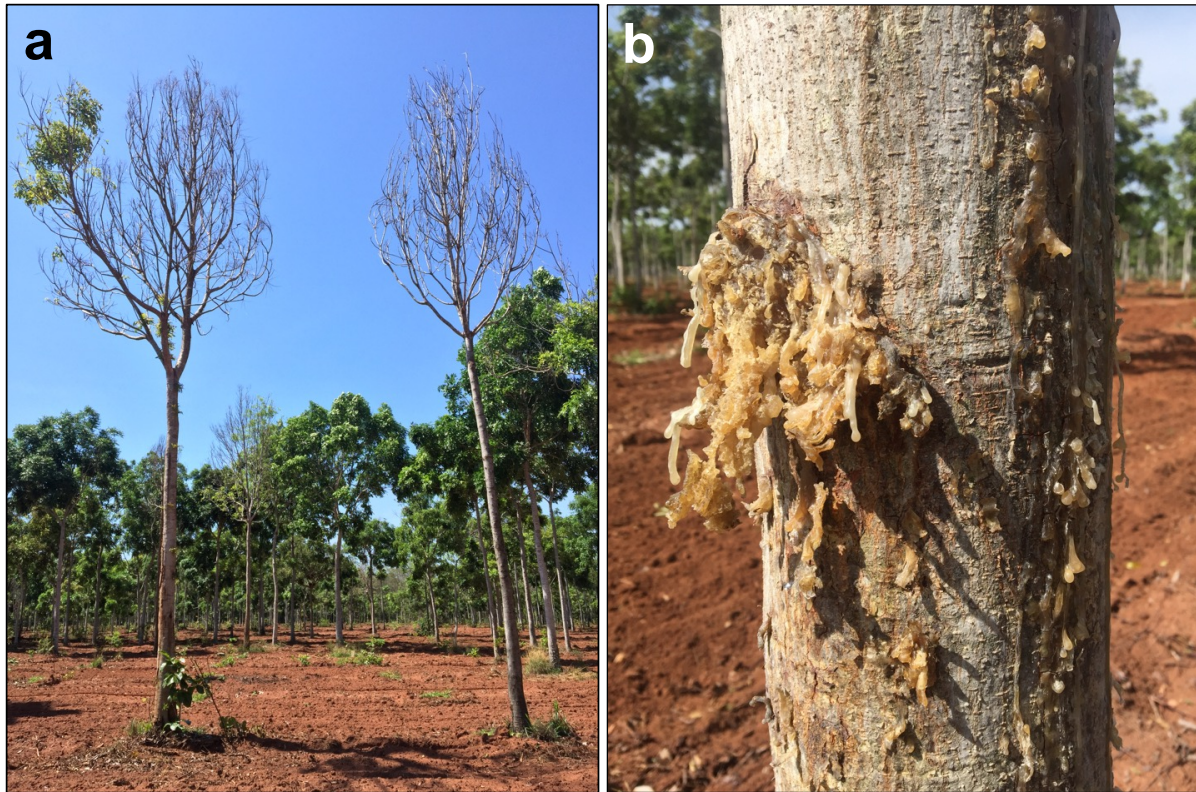


Figure S1. African mahogany, *Khaya senegalensis*, plantation that suffered a serious outbreak of *Euplatypus parallelus* in southwestern Brazil: (a) two mahogany trees with symptoms of dieback wilt syndrome; (b) mahogany trunk with resinosis. Photos by H.L. Rainho.