Electrophysiological Responses of *Atta sexdens rubropilosa* Workers to Essential Oils of *Eucalyptus* and its Chemical Composition

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The leaf-cutting ant *Atta sexdens rubropilosa* Forel, 1908 is the most harmful of the *Eucalyptus* pests, causing severe losses in wood production through defoliation. Various strategies have been tried and effort spent on the development of methods to control this pest, however no practical and environmentally acceptable one currently exists. In this work the chemical composition of the essential oil of seven *Eucalyptus* species was identified and the selectivity and sensitivity of antennal receptors of *A. sexdens rubropilosa* workers to the volatile compounds were determined using the electroantennographic technique (EAG and GC-EAD). Analysis by GC-EAD showed in *E. cloesiana* and *E. maculata*, respectively, seventeen and sixteen terpenes that elicited responses in ant workers' antennae, indicating the potential role of the essential oils as allelochemicals that determine the choice of the foraging material.

Key words: Leaf-Cutting Ant, Essential Oil, Electroantennography