

Cuticular Hydrocarbons of *Heterotermes tenuis* (Isoptera: Rhinotermitidae): Analyses and Electrophysiological Studies

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Termites have become an important pest of *Eucalyptus* and *Pinus* reforestation, sugarcane and other cultures. An alternative for the control of this pest would be the use of attractive traps that take in account the social behavior of these insects. Diverse factors are important for the insects in the localization of the habitat and the choice of the food and specific odors can facilitate this. Studies referring to *Heterotermes tenuis* (Isoptera: Rhinotermitidae) are scarce. The objective of this work was to analyze the tergal cuticular extract of *H. tenuis* and determine the selectivity and sensitivity of its antennae to the components of this extract by electroantennography (EAG). The composition of the cuticular extract was determined by GC-MS analysis. The hydrocarbons found were restricted to linear alkanes, being most abundant C₂₄ to C₂₇ that comprises *ca.* 65% of the total. Olefins were not detected. EAG and behavioral test responses to the cuticular hydrocarbons were greater and significantly different from the control and the high selectivity of the antennae to the extract indicates its potential as chemical messenger. Cuticular hydrocarbons mixture is species-specific and can be used to identify a given taxon without the diagnostic castes, soldiers or imagoes. Difference in the composition appears to relate with the type of habitat of specie.

Key words: *Heterotermes tenuis*, Cuticular Hydrocarbons, Electroantennography