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Sensilla profile on the legs and antennae of three ant species: A SEM and light microscopic study

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Abstract

Sensory adaptations of insects, in particular, ants, are a little-explored research area. The sensitivity of an insect is reflected by the types and number of sensilla it possesses. The sensory profile on the legs and antennae of *Diacamma rugosum* Forel, *Messor barbarus* L. and *Myrmicaria brunnea* Saunders, were investigated in the present study. Chemo-sensilla and mechano-sensilla of each species were characterized by detailed morphology. A species-specific profile of sensory pattern was observed in the ants. Sensilla basiconica, Sensilla trichoidea curvata, Sensilla ampullacea and Sensilla coeloconica were the important chemo-sensilla observed in the species. Different types of mechano-sensilla were also noticed. Results of the present study indicated the possibility of a subterranean-specific sensory organization at the peripheral level.

Key words: subterranean, sensory adaptations, sensilla basiconica, sensilla trichoidea curvata, sensilla coeloconica

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