

## **Influence of leaf volatiles of *Eucalyptus citriodora* Hook. on the growth and development of *Exorista bombycis* (Louis)**

**K.C. Narayanaswamy**

*Karnataka State Sericulture Research and Development Institute,  
Thalaghattapura, Kanakapura Road, Bangalore-560 0656, India*

### **ABSTRACT**

Narayanaswamy, K.C. 2000. Influence of leaf volatiles of *Eucalyptus citriodora* Hook. on the growth and development of *Exorista bombycis* (Louis). *Ann. Trop. Res.* 22[1-2]:80-87.

Exposure of freshly laid eggs of *Exorista bombycis* (Louis) to volatiles emanating from leaves of *Eucalyptus citriodora* Hook. for different durations resulted in significant reduction in their hatchability. None of the maggots emerged from the host larvae when the eggs of the parasitoid were exposed for 64 and 74 hours to volatiles of *E. citriodora*. There was a significant increase in the duration of lifecycle besides reduction in the rate of pupation and adult emergence as the egg exposure period increased. Findings indicate that the chronic effects of volatiles were sustained during embryonic development. The known major chemical components of *E. citriodora* such as citronellal, cineole, pinenes, pinocarveol, cuminaldehyde, sesquiterpene alcohols, aromadendrene, phenols and aldehydes were presumed to be responsible for the adverse consequences reported in this paper.

**Keywords:** *Exorista bombycis*. *Eucalyptus citriodora*. growth and development. leaf volatiles.

K.C. Narayanaswamy is the corresponding author. Address: College of Sericulture, University of Agricultural Sciences, Chintamani - 563 125, India.