

## **COPTOTERMES IDENTIFICATION AND DISTRIBUTION IN PENANG ISLAND, MALAYSIA**

**YIK-PHENG GOH AND CHOW-YANG LEE**

Urban Entomology Laboratory, Vector Control Research Unit, School of Biological Sciences, Universiti Sains Malaysia,  
11800 Penang, Malaysia.

**Abstract** The genus *Coptotermes* is a member of the subfamily Coptotermitinae Holmgren of the family Rhinotermitidae. In Malaysia, *Coptotermes travians* was identified as the predominant termite pest (53%), followed by *Coptoteremes curvignathus* (28%). There are some complications on the taxonomic status of *Coptotermes* pest species namely *Coptotermes gestroi*, *Coptotermes travians* and *Coptotermes havilandi*. Thus, a revision of the economic status of each *Coptotermes* species is needed to further substantiate previous findings. In this study, termite samples were collected around Penang Island and four species of *Coptotermes* have been found. They were *C. gestroi*, *C. curvignathus*, *C. kalsholveni* and *C. travians*. The genus *Coptotermes* is well-distributed around the island. Results also showed that the most common termite species that attack residential and commercial buildings is *C. gestroi* while the three other species only constitutes less than 5% of the collection which were found outside buildings. *C. gestroi*, known as the Asian subterranean termite is the most destructive structural termite species in South East Asia. More than RM30 million are spent each year for the control of this species in Malaysian buildings and structure. Three characteristics such as the shape of the head, mandible and postmentum were used to differentiate the four species in this study. Besides that, the measurement of the length of head to the base of mandibles, width of head at the base of mandibles and maximum width of head were used to differentiate the *C. curvignathus* with a bigger head size compared to *C. gestroi*.