

**BP5.**

**PARASITISM IN LARVAE OF THE MAHOGANY SHOOT BORER,  
*HYPSIPYLA ROBUSTA* (MOORE)**

RIZANA M. MAHROOF, JAYANTHI P. EDIRISINGHE  
AND CAROLINE HAUXWELL\*

*Department of Zoology, Faculty of Science, University of Peradeniya and  
\*Institute of Ecology and Resource Management, University of Edinburgh, UK*

Big leaf mahogany *Swietenia macrophylla* (King), grown along the tropical belt is one of the finest cabinet timbers of the world. It is grown at an extent of 4229.3 ha in Sri Lanka. Establishment of plantations is severely restricted due to the attack by the moth *Hypsipyla robusta* (Pyralidae: Phycitinae), whose larvae bore into shoots of young plants resulting in forking, branching and stunted growth. The shoot borer larvae are parasitised by a hymenopteran Braconid wasp *Cotesia ruficrus* (Haliday) which is the only known parasitoid from Sri Lanka.

The level of parasitism was monitored at two mahogany plantations in the Kegalle district, each 0.5, 2.5 ha in extent, with about 300, 1500 trees respectively. About 300 - 500 trees were examined from the two plantations at 2-4 week intervals for damaged shoots bearing larvae. Infested shoots were brought into the laboratory and the larvae were removed from damaged shoots and they were reared on an artificial diet. On emergence of adults the level of parasitism was recorded.

A total of 1437 larvae were obtained from 22 field collections made during two years. A total of 569 larvae were parasitised by *C. ruficrus*. The average parasitism level of 39.6% ranged from 4.76 - 83.3 %. Low levels of parasitism were seen in the months of December-March, while the highest level of parasitism was recorded in September. This initial study indicates that the level of parasitism of *H. robusta* larvae by *C. ruficrus* in Sri Lanka is very high compared to that in India and methods to encourage this important parasitoid is being explored.

Financial assistance by DFID (UK) FRP/R/6055 is acknowledged.