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Diversity of parasitoid of mealybugs (Hemiptera: Pseudococcidae) in selected areas of Sri Lanka

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Parasitoids can be used to control different mealybug species that have developed into pest status. However, the parasitoid community of mealybugs in Sri Lanka has not been documented. Therefore, this study was conducted to identify parasitoids species of mealybug in three areas of Sri Lanka. Five samples of mealybug infected plant (*Manihot esculenta*, *Hibiscus rosa*, *Wendlandia bicuspidate*, *Hibiscus mutabilis*, *Jatropha* spp.) parts were collected from each location, namely, Ratnapura, Kadawatha and Kandy at two week intervals. Samples were placed in closed glass vials and kept under 27 ^{0}C and 60–70 % RH. The emerged parasitoids were identified by using taxonomic keys and published literature. Specimens were preserved as dry mounts, slide preparations and KAA solution (10 parts of ethyl alcohol, 01 part of kerosene and 02 parts of acetic acid) for further study. Three parasitoid species, *Acerophagus 26exica* (83%), *Anagyrus loecki* (15%) and *Pseudleptomastix Mexicana* (3%) were found in papaya mealybug *(Paracoccus marginatus).* Also two parasitoid species, *Pseudleptomastix Mexicana* (70%) and *Aenasius dives* (30%) were found in *Phenacoccus solanepsis*. *Acerophagus 26exica* was the most abundant parasitoid of *Paracoccus marginatus. Pseudleptomastix 26exicana* was also found to be effective in the control of both *Paracoccus marginatus* and *Phenacoccus solanepsis.* The parasitoid population varied significantly with the plant species and the mealybug species. There was no significant variation between parasitoids with areas from which samples were collected.

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