



INVENTORY AND POPULATION ASSESSMENT OF NATIVE PREDATORS ATTACKING MEALYBUGS INFESTING MULBERRY IN WEST BENGAL

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ABSTRACT

The pink hibiscus mealybug, *Maconellicoccus hirsutus* (Green) and papaya mealybug, *Paracoccus marginatus* Williams and Granara de Willink have attained the status of major sucking pests of mulberry (*Morus alba* L.), the sole host plant of silkworm, *Bombyx mori* (L.), which provides the livelihood option for millions of sericulture farmers in India. The Indo-gangetic plains of West Bengal harbour rich fauna of coccinellid predators, which can be effectively utilized for the management of the major pests of mulberry. Information on native arthropod predators and their impact on mealybug complex are useful for implementing biological control. During 2014-15, a study was conducted to explore and characterize foliar-dwelling, arthropod native predators in four locations (Murshidabad, Nadia, Birbhum and Malda) in West Bengal. Surveillance studies revealed sixteen predator species, consistently associated with mealybugs infesting mulberry. They are *Brumoides suturalis* (F), *Coccinella septempunctata* L., *Jauravia pallidula* Mots, *Menochilus sexmaculatus* (F), *Nephus regularis* Sicard, *Nephus* sp. nr. *roepkei* de Fluiter., *Nephus bipunctatus* Kugelann, *Scymnus bourdilloni* Kapur, *Scymnus coccivora* Ayyar, *Scymnus nubilus* Mulsant, *Scymnus pallidicollis* Mulsant, *Scymnus pyrocheilus* Mulsant, *Spalgis epius* (Westwood), *Mallada desjardinsi* (Navas) and one anthocorid bug (unidentified). Apart from these arthropods, one new species of *Scymnus* Kugelann, *Scymnus* (*Pullus*) *latifolius* Poorani sp. nov, was collected and reported for the first time. The present study highlights the predator species composition, abundance and their seasonal phenology.

Key words: *Maconellicoccus hirsutus*, mulberry, native predators, *Paracoccus marginatus*.