Three new species of reared parasitic wasps (Hymenoptera: Braconidae: Microgastrinae) from India

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Abstract

Three new species of parasitic wasps (Braconidae: Microgastrinae) from southern India are described and illustrated. *Glyptapanteles clanisae* sp. nov., a remarkable gregarious endoparasitoid, was bred from the caterpillar of *Clanis phalaris* Cramer (Lepidoptera: Sphingidae) on the host plant *Pongamia pinnata* (L.) (Leguminosae) along with a hyperparasitoid, *Eurytoma* sp. (Eurytomidae). *Glyptapanteles trilochae* sp. nov., was reared from parasitized caterpillar of *Trilocha varians* (Walker) (Lepidoptera: Bombycidae) on the host plant *Ficus racemosa* L. (Moraceae) along with a hyperparasitoid, *Paraphylax* sp. (Ichneumonidae: Cryptinae). *Buluka horni* sp. nov. was collected from solitary cocoons of an indeterminate caterpillar feeding on *Mangifera indica* L. leaves. This study also confirms a host range extension of Indian species of *Glyptapanteles* to Bombycidae and Sphingidae in addition to the earlier documented families viz., Papilionidae, Nymphalidae, Arctiidae, and Noctuidae.

Key words: *Buluka*, *Glyptapanteles*, new species, larval parasitoids, *Clanis*, *Trilocha*, host association, hyperparasitoids

Introduction

Microgastrinae parasitic wasps are the most readily encountered species associated with pests of agro and agro-forestry ecosystems. *Glyptapanteles* is the third most common microgastrine genus after *Apanteles* and *Cotesia* from the Indian region. However, it remains the least documented due to its highly speciose nature and remarkable host associations. Gupta & Pereira (2012) provided list of Indian species for the genus *Glyptapanteles* and their associated hosts. It includes *G. hypermnestrae* Gupta and Pereira (2012) from host *Elymnias hypermnestra* (Linnaeus) (Nymphalidae), *G. bhupali* Sathe, Inamdar & Dawale (2003) and *G. indica* Sathe & Dawale (1999) from *Spilosoma obliqua* Walker (Arctiidae), *G. melanitisi* Sathe & Bhoje (2000) from *Melanitis leda ismene* Cramer (Nymphalidae) and *G. spodopterae* Ahmad from *Spodoptera litura* Fabricius (Noctuidae) (Zubair, Hussain & Shanthi (2009). Gupta et al. (2011) reassigned *G. aristolochiae* (Wilkinson), a gregarious endoparasitoid of *Pachliopta hector* (Linnaeus) (Lepidoptera: Papilionidae) from the genus 'Apanteles'. In the present study, two new species, *G. clanisae* sp. nov. and *G. trilochae* sp. nov. are described. A host range extension of *Glyptapanteles* in India is observed: Bombycidae, Sphingidae, Papilionidae, Nymphalidae, Arctiidae, and Noctuidae.

*Buluka* de Saeger (Braconidae: Microgastrinae) is known from Afrotropical, Australasian, and Oriental regions. Austin (1989) revised the genus and provided the first host record from *Imma thyriditis* Meyrick (Lepidoptera: Immidae) from Solomon Islands. So far, *Buluka noyesi* Austin, remains the only species documented from India, more precisely, southern India. *Buluka horni* sp. nov. is the second species to be described from India. It was collected from solitary cocoons of an indeterminate caterpillar feeding on the under surface of *Mangifera indica* L. leaf.

*Paraphylax* Foerster (Ichneumonidae: Cryptinae) is extremely large and often found parasitic on psychids, microlepidopterans, spider egg cocoons, and other ichneumonids. It is known from Afrotropical, Australasian, Eastern Palaearctic, Oceanic, and Oriental region (Yu, 2013). Recently the genus has also been documented from the Neotropical region (González-Moreno & Bordera, 2011). From India, *Paraphylax varius* (Walker) is recorded from the bagworm, *Metisa plana* Walker (Kamarudin et al., 1996). *Paraphylax* sp. has also been recorded.