



New species and additional evidence of aphid parasitoids (Hymenoptera: Braconidae: Aphidiinae) from India

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Abstract

A survey was carried out on Aphidiinae of India. Fifteen species belonging to nine genera were identified, of which *Aphidius bifurcatus* Rakhshani & Tomanović and *Ephedrus longiarticulatus* Rakhshani & Tomanović are newly described and illustrated. *Aphidius funebris* Mackauer was recorded for the first time from India. A brief taxonomic note with regard to the morphological variability of diagnostic characters as well as comments on geographical distribution are presented.

Key words: Aphidiinae, *Aphidius bifurcatus* sp. n., *Ephedrus longiarticulatus* sp. n., India

Introduction

India has some of the world's most biodiverse regions bearing a wide range of ecozones including deserts, high mountains, tropical and temperate forests, plains, grasslands, and areas surrounding rivers (Chatterjee *et al.* 2006), with numerous endemic species still to be discovered (Alfred 1998). Aphid parasitoids (Hym., Braconidae, Aphidiinae) of India were taxonomically investigated by several authors and these data are summarized in a recently published catalogue by Akhtar *et al.* (2011). There are 22 genera with 125 species indicating a diverse and rich fauna of aphid parasitoids in India with several monotypic genera (e.g. *Indaphidius* Starý and *Kashmiria* Starý & Bhagat (Starý & Bhagat 1978; Starý 1979a, b; Agarwala *et al.* 1980; Raychaudhuri *et al.* 1982; Raychaudhuri 1990; Das & Chakrabarti 1991, Subhrani *et al.* 2006). The vast majority of species have been recorded from northwest India (states of Bihar, Delhi, Jammu & Kashmir, Himachal Pradesh, Punjab, Uttar Pradesh) and West Bengal, followed by northeast India (Assam, Manipur, Meghalaya, Nagaland, Sikkim and Tripura), and a few species from southern India (Akhtar *et al.* 2011). The genus *Aphidius* comprising 21 species in India represents the largest group, followed by *Binodoxys* (19 species), *Praon* (12 species), *Pauesia* (10 species), *Ephedrus* (9 species) and *Trioxyx* (7 species) (Ghosh & Agarwala 1982; Starý & Ghosh 1983; Raychaudhuri 1990; Akhtar *et al.* 2011). Here, we present a list of aphidiine species sampled in our field work along with the respective localities, host plants and host aphids, including new records. Also, two new aphidiine species have been described.

Material and methods

Specimens were collected during the last 14 years (1994 – 2008) using a sweeping net at ten major sampling