



New species, new records and updated subgeneric key of *Bactrocera* Macquart (Diptera: Tephritidae: Dacinae: Dacini) from India

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Abstract

Two new species of genus *Bactrocera* Macquart, namely *B. (Sinodacus) brevipunctata* David and Hancock, **sp. nov.** and *B. (Bactrocera) furcata* David and Hancock, **sp. nov.**, are described from India. *B. (B.) aethriobasis* Hardy, *B. (B.) rubigina* Wang & Zhao, *B. (B.) syzygii* Tsuruta & White and *B. (B.) tuberculata* (Bezzi) are recorded for the first time from India. Updated keys to twelve subgenera of *Bactrocera* and Indian species of *Bactrocera* (*Bactrocera*) are also provided.

Key words: Dacinae, *Bactrocera*, *Sinodacus*

Introduction

Subfamily Dacinae was erected by Loew (1862) in his work on North American dipterans. Norrbom *et al.* (1999) considered it as a tribe of Trypetinae, i.e., Dacini, whereas Korneyev (1999) treated it as a subfamily of Tephritidae with tribes Ceratitidini, Dacini and Gastrozonini. Since the classification proposed by Korneyev (1999) was based on phylogenetic analysis, it is followed here. Approximately 1000 species in 42 genera are recorded from the world (Norrbom *et al.*, 1999; Drew and Romig, 2013). Of the three tribes, only two are known from India, namely Dacini and Gastrozonini. *Bactrocera* Macquart, *Dacus* Fabricius and *Monacrostichus* Bezzi are the three genera included in tribe Dacini. In tribe Dacini, the pestiferous genus *Bactrocera* is represented by 650 species in thirty subgenera across the world (Drew, 1989; Drew and Romig, 2013; David *et al.*, 2016) in three subgenus groups, namely *Bactrocera* group, *Melanodacus* group and *Zeugodacus* group based on the permutations and combinations of characters such as shape of posterior margin of sternite V of males, length of posterior lobe of surstylus compared with anterior lobe and length of extension of cell bcu (Hancock and Drew, 2015). Of these, 369 species are recorded from Indomalaya to the northwestern Australasian region in 18 subgenera, with 71 species in 11 subgenera known from India (Agarwal and Sueyoshi, 2005; David and Ramani, 2011; Drew and Romig, 2013; David *et al.*, 2016). Subgenus *Bactrocera* is the most speciose of genus *Bactrocera* with 380 species known from the world and approximately one-tenth (35 species) from India (Hancock and Drew, 2015). In Indian subcontinent, Senior-White (1922), Kapoor (1971; 1993), Hardy (1964), Munro (1935), Kapoor *et al.* (1980), Tsuruta and White (2001), Agarwal *et al.* (1989) and Agarwal and Sueyoshi (2005) described or listed most of the species. *Bactrocera* of Andaman and Nicobar islands were recorded by Ranganath and Veenakumari (1995; 1999). Drew and Raghu (2002) described eight species from Western Ghats of India and 58 species were described by Drew and Romig (2013) from Indomalaya to the northwestern Australasian region, of which four species were recorded from India (Andaman and Nicobar islands). They are predominantly tropical in distribution with the maximum number of species known from Oriental and Australasian region. One new species of subgenus *Bactrocera* and three new records for India are included here. Subgenus *Sinodacus* Zia is represented by nineteen species across the world (Hancock and Drew, 2015) and a new species of this subgenus is described here.