A new species of fig-feeding Lonchaeidae (Diptera: Schizophora) from India and a checklist for the family in the Indian sub-continent

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Abstract

A new species of Lonchaeidae, Silba lashker sp. nov. is described from specimens reared from figs in Jammu and Kashmir, India. The adult and larvae are described and comparisons are made with other species in the genus. A checklist for the Indian sub-continent is provided which lists twenty four species in four genera including one new species and a further four species recorded from the sub-continent for the first time. The family Lonchaeidae is reported for the first time from the biodiversity hotspot region of the Kashmir valley.

Key words: Diptera, Lonchaeidae, Silba, India, figs, new species, checklist

Introduction

In Europe and the Near East Silba adipata McAlpine, 1956 has been long known as being associated with cultivated figs Ficus carica L. This species involved is, originally described from Italy and is known from the Mediterranean and Near East as far east as Iraq, it has recently been found in South Africa (Giliomee et al., 2007). As a result of its agricultural pest status it has been relatively well studied and there are a number of papers dealing with its impact on figs and potential methods of control (Katsoyannos, 1983 and Katsoyannos and Guerrin, 1984 ).

The syconia of other species of figs are also known to provide larval sites for Lonchaeidae. In South America Ficus insipida Wildenow has been recorded as a larval habitat for four species within the genus Neosilba (Uchoa and Nicacio, 2010) and there are undescribed Silba species from Japan whose larvae are associated with Ficus erecta Thunberg and Ficus variegata Roding.

Despite its large land mass the Lonchaeidae of the Indian sub-continent are poorly known. Although a few species were described or recorded from the region in the early part of the twentieth century it was not until the paper produced by J.F. McAlpine dealing with the Lund University Ceylon Expedition in 1962 (McAlpine, 1975) that the Lonchaeid fauna of a small part of the sub-continent was examined in any detail. Since that time new species have only been added on a sporadic basis (MacGowan, 2006, 2007). The present record forms first report about the occurrence of the family from biodiversity hotspot region of the Kashmir Valley.

Materials and methods

Infested figs of Ficus caricaria were collected and placed in rearing cages. After emergence adults were micro pinned and staged. Male genitalia and the female aculeus of some specimens were dissected, relaxed in KOH and stored in microvials on the pin below the specimens. The genitalia were drawn in glycerol. To examine the larval cephalopharyngeal skeleton the specimen was prepared by cutting across the metathorax to remove the head end of