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A new species of *Forcipomyia* Meigen (Diptera: Ceratopogonidae) described with immature stages from India

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Abstract

Life stages of *Forcipomyia parasecuris* sp. n. are described, illustrated and photomicrograph based on examination with scanning electron microscope and binocular microscope. The larvae were collected from rotting banana stump of a banana garden at lower Gangetic plain area in India. Absence of ocular sensillum and campaniform sensillum in ocular area of pupa, a synapomorphic character of this proposed new species exhibits its uniqueness in genus *Forcipomyia*. This is also the first life stage of any *Forcipomyia* described from India.

Key words: Ceratopogonidae, *Forcipomyia*, immature, life stages, rotting banana stump

Introduction

Forcipomyia Meigen is the most complex, morphologically diverse, widely distributed genus among Ceratopogonidae comprising 1126 species in to 36 subgenera worldwide (Borkent 2014; Marino *et al.* 2013) with diverse variation in habit and habitat. *Forcipomyia s. str.* is the most specious subgenus among the subgenera of genus *Forcipomyia* with 347 species. In India, there are 60 species described so far which which are placed under 4 subgenera, among them 16 species are denoted under *Forcipomyia s. str.* (Saha *et al.* 2009). Present paper describes a new species of subgenus *Forcipomyia s. str.* with immatures from India.

Material and Methods

The third instar larvae were collected with forceps and brush from corm (sympodium) and pseudostem of rotting banana stump. These larvae were brought into laboratory for rearing. Each larva was reared separately in glass vials kept within environmental test chamber (CHM-10S) for obtaining the associated life stages. The immature and imagines were mounted on glass slides following Das Gupta & Wirth (1968). Larva and pupa also examined under scanning electron microscope [SEM, S5 30] at University Science Instrumentation Centre in University of Burdwan. The morphology and terminology follows after Spinelli *et al.* (2012) for adults, while Borkent (2012), Marino *et al.* (2013) and Paul *et al.* (2014) used for pupae, and Marino *et al.* (2010) for larvae. The measurements of different parts of immature and adults are in μm except the total length of larvae, pupa and wing length of adults expressed in mm. The measurements given as ranges with “n” in parentheses denoting the number of specimens observed.

Types are presently kept at the Entomology Research Unit of the Department of Zoology, The University of Burdwan, Burdwan and will be deposited in the National Zoological Collections (NZC), Kolkata in due course.

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