

*PENTAPEDILUM ROBUSTICEPS* (DIPTERA : CHIRONOMIDAE)

—A NEW SPECIES FROM INDIA

By

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ABSTRACT

*Pentapedilum robusticeps* Sp. nov. from Bastar, M. P. is described and illustrated.

INTRODUCTION

In the Oriental region the genus *Pentapedilum* was represented by two species such as *P. nodosum* and *P. convexum* both described by Johannsen (1932) from Caroline Islands, Marina Islands, Java and Sumatra. Recently, two more species, *P. kuluensis* Kulshrestha (1979) and *P. macrotrichium* Guha & Chaudhuri (1981) have been added to the genus. In this paper another new species is described from Bastar (M.P.) and with these number of species in this genus comes to five from the Orient.

***Pentapedilum robusticeps* sp. nov.**

( Figs. 1-5 )

Male :

*Head* : Yellow in colour. Vertex with 8 setae (Post ocular 0, outer verticles 6 and inner verticles 2), corona without seta.

Clypeus with 16-18 setae, clypeal ratio 1.12. Maxillary palp yellow, length ratio of palpomeres I-V 8 : 7 : 30 : 28 : 40, L/W ratio 3.75. Eyes bare, reniform and extended dorsally, extension being 0.17 mm long. Frontal tubercle absent. Antenna pale brown, length ratio of flagellomeres I-XII 5 : 2 : 2 : 2 : 2 : 2 : 2 : 1 : 1 : 66, AR 3.0. Pedicel ratio 1.0.CA 0.34, CP 1.07.

*Thorax* : Yellow in colour. Antepro-notum thin without V shaped emargination. Acrostichals 14-16 in pairs, dorsocentrals 34 also in pairs and prelaris 6. Scutellum with 26 setae in two transverse rows, post-scutellum light brown and bare.

*Wing* (Fig. 1) : Pale with the veins yellow. Brachiolum with 7 setae. Macrotrichia distributed profusely on membranes and veins including cross vein.  $R_{2+3}$  very close to  $R_1$ , distance being 0.19 mm away from  $R_1$ , ending of  $R_{4+5}$  with C subacute, r-m

proximal to f-cu ; An slightly proximal to f-cu. Anal lobe weakly developed. Squama with 12 setae. Haltere pale. CR 0.96, VR 1.1.

**Legs :** Yellow in colour with numerous setae. Fore tibial scale (Fig. 2) long with apex blunt. Spur of mid tibia single, curved 0.06 mm long, ratio of length of spur to the apical diameter of mid tibia 1 : 1 ; spur of hind tibia also single, curved 0.068 mm long, ratio of length of spur to the apical diameter of hind tibia 1 : 1. LR 1.66 in fore leg, LR 0.61 in mid leg and LR 0.77 in hind leg. TR of hind leg 1.75.

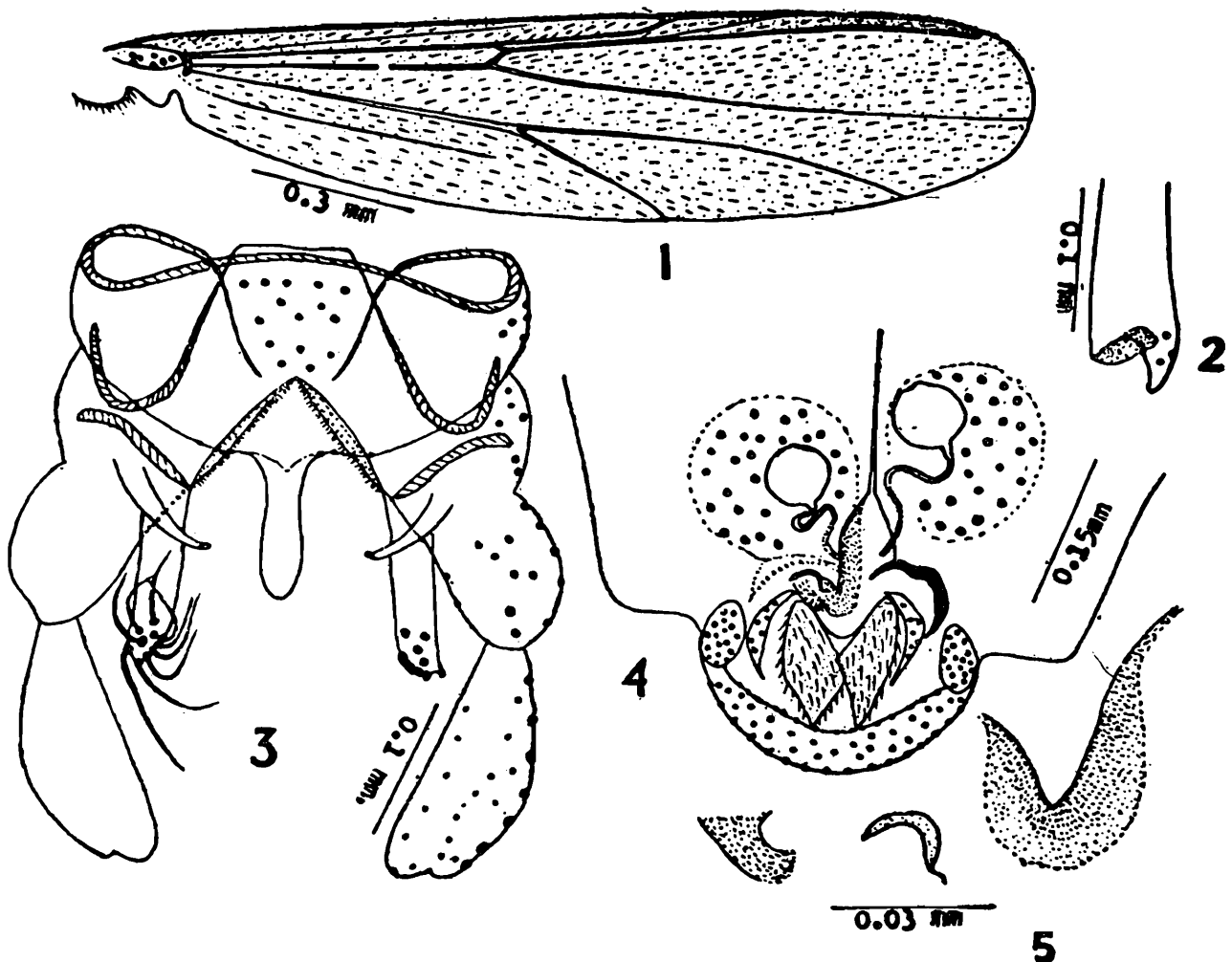
**Abdomen :** Terga uniformly setaceous with alternate yellow and brown bands.

**Hypopygium (Fig. 3) :** Anal point 0.68

mm long, stout, blunt and base with 8 setae on each side. Gonocoxite stout with 16-18 setae ; gonostylus with 12 short setae at its inner apical margin. Appendage 1 narrow, 11 little curved at its apex bearing 4-5 setae at the base, appendage 2 finger like with 15-17 long incurved setae. Transverse sternapodeme 0.23 mm long, lateral sternapodeme 0.12 mm long, coxapodeme 0.06 mm and phallapodeme 0.09 mm long. HR 0.57, HV 1.8.

**Female :**

Similar to male with usual sex differences. Maxillary palp yellow, length ratio of palpomeres I-V 6 : 8 : 25 : 27 : 37.



Figs. 1-5. *Pentapedilum robusticeps* sp. nov.

**Genitalia** (Fig. 4) : Notum 0.16 mm long. Coxosternapodeme well developed, curved with an apical notch. Gonapophysis VIII (Fig. 5) divided into an elongated dorsomesal, short and stout ventrolateral lobe. Apodeme lobe weak. Tergum IX with many setae. Post genital plate U shaped. Gonocoxite IX with 16-17 setae. Seminal capsules equal, oval with a neck, main body of the capsule measuring 0.06 mm by 0.07 mm, ducts of seminal capsule bent and open in common.

**Measurements :**

Body length ♂ 3.24, ♀ 3.15 mm.

Wing length ♂ 2.0 mm, ♀ 2.16 mm.

Wing breadth ♂ 0.59 mm, ♀ 0.66 mm.

**Holotype** : ♂ (Z.S.I. Reg. No. 6562/H<sub>8</sub>), India, Madhya Pradesh, Bastar, 7.4.80, coll. S. Ahmed.

**Allotype** : ♀ (Z.S.I. Reg. No. 6563/H<sub>8</sub>) data same as holotype.

**Paratype** : 1 ♂, data same as holotype. Kept in collection of Zoology Deptt. Burdwan University.

**Diagnosis** : In view of robust anal point this species is designated as *Pentapedilum robusticeps*. It seems close to *P. macrotrichium* Guha & Chaudhuri (1980) in wing and legs. *P. calvescens* Freeman (1958) shows resemblances with the present species in some aspects of male hypopygium. The

characters like fore tibial scale, anal point and the structure of gonostylus appear to be sufficient to consider it as a separate species under the genus *Pentapedilum*.

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