

*MICROCHIRONOMUS CLARILATUS* SP. NOV. (DIPTERA : CHIRONOMIDAE)  
FROM WEST BENGAL, INDIA

D. K. GUHA AND P. K. CHAUDHURI\*  
*Zoological Survey of India, Calcutta*

ABSTRACT

A new species, *Microchironomus clarilatus* is described in this paper. The generic status of one species, *Cryptochironomus primitivus* Johannsen (1932) has been proposed as *Microchironomus primitivus* as a new combination.

INTRODUCTION

While going through the collections of chironomid midges, quite a few specimens were observed to belong to the genus *Microchironomus* Kieffer. The genus was described originally by Kieffer (1918) as a subgenus of *Chironomus* Meigen with *Chironomus lendli* as its type-species. Though no species of this genus was recorded previously from the Orient, we consider *Chironomus* (*Cryptochironomus*) *primitivus* described by Johannsen (1932) from Java to be a member of *Microchironomus*. With the present the number of species of the above genus comes to two from the Orient and one from India.

***Microchironomus clarilatus* sp. nov.**

(Fig. 1 a-g)

Male :

*Head* : Brown in colour. Vertex light brown with 10 (outer verticals 5, inner verticals 5) setae, corona without seta. Clypeus with 14-16 (16) setae, clypeal ratio 0.94.

Maxillary palp (Fig. 1, a) yellow, length ratio of palpomeres I-V 3 : 2 : 4 : 6 : 8, L/W ratio 3.2. Eyes bare, reniform, extended dorsally, extension being 0.09 mm long. Frontal tubercle absent. Antenna dark brown, length ratio of flagellomeres I-X 1 : 1 : 1 : 1 : 1 : 1 : 1 : 1 : 1 : 32, AR 3.5. Pedicel ratio 1.2. CA 0.55, CP 1.2.

*Thorax* (Fig. 1, b) : Light yellow in colour. Anteprepronotum very thin, collar-like with a narrow emargination. Acrostichals 10 dorso-centrals 8, humeral 1 and prealars 2. Scutellum with 12 setae, postscutellum dark brown and bare.

*Wing* (Fig. 1, c) : Hyaline with veins light brown and the anterior veins more distinct than the posterior ones. Brachiolum with 2 setae. M with 3-4 setae ;  $R_{2+3}$  meets C very close to  $R_1$  ; ending of  $R_{4+5}$  with C pointed ; r—m dark and proximal to f—cu ; An ends below f—cu. Squama with 5-6 setae. Haltere light brown without seta. CR 0.97, VR 1.12.

\* Department of Zoology, University of Burdwan, Burdwan 713104 (India)

*Legs* (Fig. 1, d) : Brown in colour except tarsomeres V of mid and hind legs. Fore tibial scale blunt bearing 2 long setae. Spurs of mid tibia equal, 0.017 mm long, ratio of length of spurs to the apical diameter of mid tibia 4 : 10 ; spurs of hind tibia unequal, 0.021 mm and 0.025 mm long, ratio of length of

developed with a cone shaped blunt apex bearing 10 setae at its base. Gonocoxite short with 10-12 (10) setae over it ; gonostylus long, little constricted at the middle, apical part swollen slightly with an abrupt tip, gonostylus with 5-7 long setae at its outer margin and 10 setae at its inner apical margin.

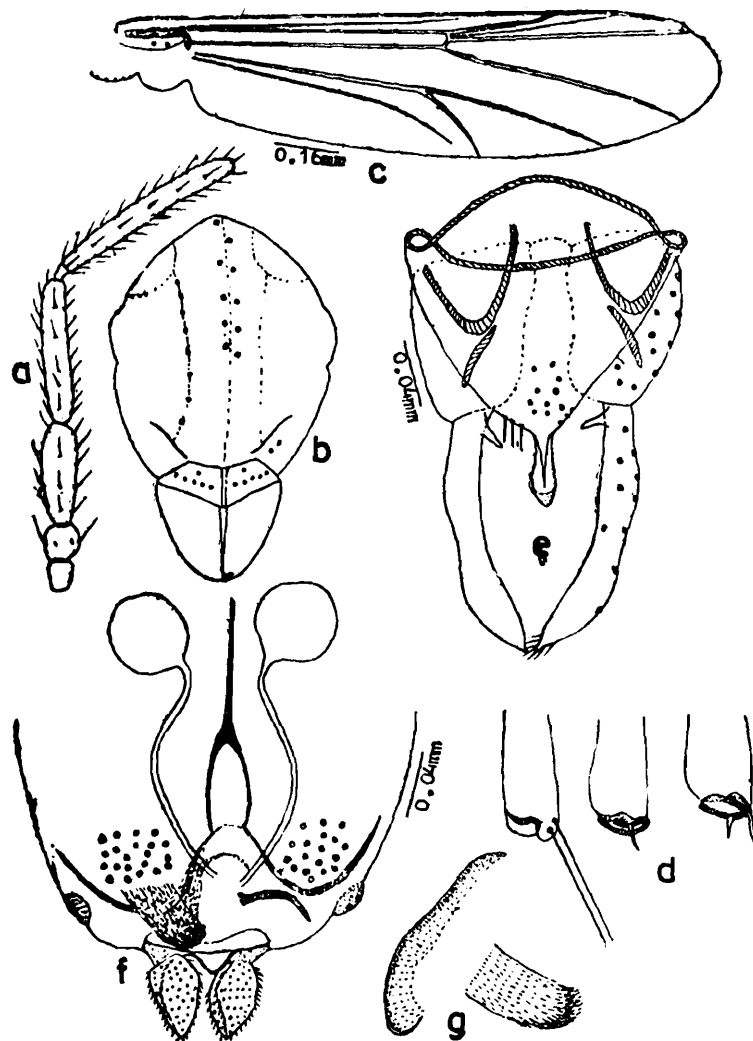


Fig. 1.a-g. *Cryptochironomus clarilatus* sp. nov.

(a) maxillary palp, (b) thorax, (c) wing, (d) tibial ends of fore, mid and hind legs, (e) hypopygium of male and (f-g) genitalia of female.

spurs to the apical diameter of hind tibia 5 : 11 and 6 : 11. Tarsomere V of mid and hind legs dorsoventrally flattened and dark. Pulvilli broad. LR 1.19 in fore, 0.58 in mid and 0.63 in hind legs.

*Hypopygium* (Fig. 1, e) : Anal point well

Appendage 1 very short and bare, appendage 2 absent. Laterotergite with 8 setae. Transverse sternapodeme 0.14 mm long, lateral sternapodeme 0.06 mm long and coxapodeme 0.03 mm long. HR 0.5, HV 1.8.

## Female :

Similar to male with usual sex differences. Antenna brown, flagellomere V brown with an apical seta and 3 sensilla, length ratio of flagellomeres I-V 16 : 9 : 11 : 9 : 25, AR 0.56. Wing hyaline, chaetotaxy as in male. Genitalia (Figs. 1, f-g) : Notum 0.3 mm long. Coxosternapodeme broad and gently bent at the middle, gonocoxapodeme VIII broad and rounded with 6 setae. Gonocoxite IX with 3 setae. Gonapophysis VIII divided into a long dorso-mesal and a broad ventrolateral lobe. Apodeme lobe weak. Tergum IX with 6-7 setae on each side, tergum X with a small seta on each side. Postgenital plate conical. Cerci normal with 7 setae. Labia with microtrichia. Seminal capsules (Fig. 1, f) spherical, equal, with a neck ; main body of the capsules measuring 0.15 mm by 0.08 mm ; ducts of seminal capsules with or without bends and opening separately.

*Measurements* : Body length ♂, 3.02 (2.95-3.25, n=5) mm, ♀, 2.16 mm ; wing length ♂, 1.22 (1.1-1.28, n=5) mm, ♀, 1.24 mm ; wing breadth ♂ 0.36 (0.33-0.38, n=5) mm, ♀, 0.41 mm.

*Diagnosis* : In view of the hyaline wing the present species is named as *Microchironomus clarilatus*. It shows similarity with *Microchironomus deribae* (Freeman) from Sudan, France, Israel and Turkey in respect to the male hypopygium. Similarly, the body pattern and the male hypopygium of the present species seem close to *M. stilifer* (Freeman) from Afrotropical region and *M.*

*forcipatus* (Freeman) from Africa and Australia but the chaetotaxy of thorax, hyaline wing, antennal ratio (AR), leg ratio (LR), anal point and the gonostylus in particular separate it from all other species described from the world.

*Holotype* : ♂ (Z. S. I. Reg. no. 6559/H<sub>0</sub>), West Bengal, Raniganj, 2. viii. 1975, Coll. P. K. Chaudhuri.

*Allotype* : ♀ (Z. S. I. Reg. no. 6560/H<sub>a</sub>), data same as holotype.

*Paratypes* : 4 ♂♂ and 3 ♀♀, 14.iv. 1977, and 10.vii. 1978, rest data same as holotype and kept in the collections of insects at the Department of Zoology, University of Burdwan.

## ACKNOWLEDGEMENTS

We are grateful to the Director, Zoological Survey of India, Calcutta and Prof. S. K. Das Gupta, Head of the department of Zoology, Presidency College, Calcutta for helps and criticisms.

## REFERENCES

- JOHANNSEN, O. A. 1932. Chironominae of the Malayan Subregion of the Dutch East Indies. *Arch. Hydrobiol. (Suppl.)*, **11** : 503-552.
- KIEFFER, J. J. 1918. Chironomides d'Afrique et d'Asie conservés au Musée National Hongrois de Budapest. *Annls hist. nat. Mus. natn. hung.*, **16** : 31-139.

