

REICHENBACHIA

Staatliches Museum für Tierkunde Dresden

Band 28

Ausgegeben: 25. November 1991

Nr. 33

Eukiefferiella oryza sp. n., an orthocladiid midge from the rice paddy of West Bengal (Insecta, Diptera: Chironomidae)

With 4 Figures

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Abstract. *Eukiefferiella oryza* sp. n. is recorded and described for the first time from the rice field of West Bengal, India.

This is a supplement to our previous paper entitled 'Chironomids of the rice paddy areas of West Bengal, India' (CHAUDHURI & CHATTOPADHYAY, 1990). The orthocladiid species was first reported in the rice fields of France by RISBEC (1952) als *Cricotopus trifasciatus* PANZER. Quite a good number of chironomids was described from the rice paddies of India but none of them belong to Orthocladiinae. In orient, only three orthocladiids, *Orthocladus kanii* (TOKUNAGA), *O. suspensus* (TOKUNAGA) and *Cricotopus trifasciatus* PANZER were reported from the rice fields (HASHIMOTO et al., 1981; SASA & KIKUCHI, 1986). In course of our investigations of the chironomids of the rice fields of West Bengal, four specimens belonging to *Eukiefferiella* THIENEMANN were caught through sweeping in the rice paddy of the plain of West Bengal. So far literature goes, there is no record of the genus from the rice fields of the Orient.

The descriptions, terminology and abbreviations of the specimens follow SAETHER (1980). Types are provisionally kept in the collections of insects of the Department of Zoology, University of Burdwan and will be deposited to the British Museum (Natural History), London; U.S.N.M., Washington D. C.; National Zoological Collections, Calcutta and Zoologische Staatssammlung, München in time.

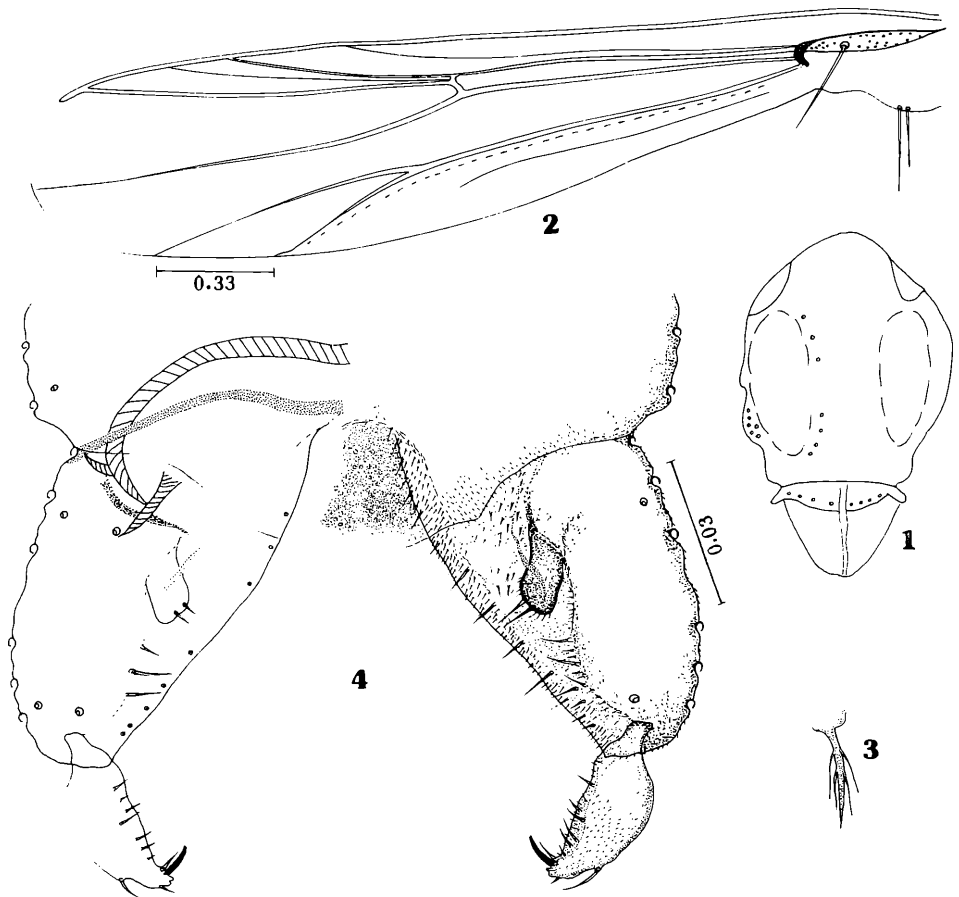
Eukiefferiella oryza sp. n. (Figs. 1–4)

Male Body length 2.14 (2.11–2.17, $n = 4$), wing length 0.91 (0.91–0.94, $n = 4$) and wing breadth 0.27 (0.27–0.28, $n = 4$). (All measurements in mm).

Head: Brown in colour. Vertex with 4–5 (4) inner verticals, 2 postorbitals and no outer verticals. Clypeus with 10–12 (10) setae, clypeal ratio 1.2. Maxillary palp yellowish brown, palpomere III with 3 sensilla clavata, length ratio of palpomeres I–V 5 7 17 17 13, L/W ratio 3.4. Antenna brown, length ratio of flagellomere I–XIII 14 7 7 8 9 8 7 8 10 9 9 9 69, AR 0.66. CA 0.63, CP 1.86.

Thorax (Fig. 1) Yellowish brown. Antep pronotum collar-like without antep pronotal. Acrostichal (?), dorsocentrals 8 uniserial, prealars 6 and humeral 1. Scutellum with a row of 8 setae, postnotum dark brown and bare.

Wing (Fig. 2) White with fine microtrichia all over the membrane. Brachiolium with 1 seta and 23–25 (25) sensilla campaniformia. Veins without setae, costa little extended; r–m proximal to f–cu; Cu₂ curved and recurved at tip. Squama with 3 setae. Haltere brown and bare.



Figs. 1–4: *Eukiefferiella oryza* sp. n., ♂. 1: thorax – 2: wing – 3: spur of fore tibia showing lateral setae – 4: hypopygium.

Legs: Light brown. Spur of fore tibia 0.03 long, and with 2 pairs of lateral setae (Fig. 3), ratio of length of spur to the apical diameter of fore tibia 7 : 10; spurs of mid tibiae unequal 0.01 and 0.02 long, ratio of length of spurs to the apical diameter of mid tibiae 4 : 8 and 9 : 8; spurs of hind tibiae also unequal 0.01 and 0.03 long, ratio of length of spurs to the apical diameter of hind tibiae 4 : 8 and 11 : 8. Hind tibial comb with 7 setae 0.021–0.024 long. Empodium 0.015 long.

Measurements (in mm): Proportions and ratios of leg segments:

	Fe	Ti	ta ₁	ta ₂	ta ₃	ta ₄	ta ₅	LR	BV	SV	BR
Fore	32	36	21	13	8	5	5	0.58	2.87	3.78	1.8
Mid	28	31	14	8	6	3	3	0.45	3.65	4.92	1.4
Hind	33	35	20	10	7	4	4	0.57	3.52	4.53	1.66

Abdomen: Yellow. Tergite IX with 13–16 setae. Hypopygium (Fig. 4) without anal point. Gonocoxite 0.108 long, with lobular and setose inferior volsella bearing 2 long apical setae. Gonostylus 0.045 long, evenly rounded on outer margin and with seta and megaseta 0.01 long. Transverse sternapodeme 0.072, lateral sternapodeme 0.051, coxapodeme 0.012, phallapodeme 0.042 long. HR 2.4, HV 1.03.

Female Unknown.

Holotype ♂ (Type no. B. U. Ent. 205), India, West Bengal, Bankura, 14. i. 1990, Coll. S. CHATTOPADHYAY. **Paratypes** 3 ♂♂, data same as holotype.

Remarks The name of the species comes from the rice field of which the specimens were caught. It shares similarities in gonostylus of ♂ hypopygium with *Eukiefferiella tonolii* ROSSARO, 1983, and *E. devonica* (EDWARDS). The wing venation of *E. ilkleyensis* (EDWARDS) appears to be closer to the present species but its identity of *E. oryza* as a new member of the genus may be established by the following combination of characters: i) palpomere III with 3 sensilla clavata, ii) scutellum with 8 uniserial setae, iii) squama with 3 setae, iv) fore tibial spur with 2 pairs of lateral setae, v) hind tibial comb with 7 setae and vi) lobular and setose inferior volsella having 2 long apical setae.

The species of *Eukiefferiella* and the orthocladiids as a whole are said to be montane species occurring in the colder habitats of India. Its occurrence in the plains may be considered as local migrants and its propagation was possible due to colder climate in January.

Acknowledgements The authors are grateful to Council of Scientific and Industrial Research, Govt. of India, for financial assistance to the senior author and to the University of Burdwan for laboratory facilities.

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(Received on 10. IV 1990)

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Band/Volume: [28](#)

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Artikel/Article: [Eukiefferiella oryza sp. n., an orthocladiid midge from the rice paddy of West Bengal \(Insecta, Diptera: Chironomidae\) 177-179](#)