

**CALICNEMIA MUKHERJEEI SPEC. NOV. FROM
KHASI HILLS, INDIA
(ZYGOPTERA: PLATYCNEMIDIDAE)***

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Calicnemia mukherjeei sp. n., a red species closely related to *C. miniata* (Selys, 1886), is described and figured (σ holotype, φ allotype: Risa Colony, Shillong, India).

MATERIAL AND DESCRIPTION

Material. — σ holotype, φ allotype: Risa Colony, Shillong, Khasi Hills, Meghalaya, India; coll. A.R. Lahiri; 22.VIII.1974; deposited in the collections of the Zoological Survey of India, Calcutta; — 2 σ paratypes: old Barapani road-side, Shillong, India; coll. A.R. Lahiri; 6.VI.1973; deposited in the Eastern Regional Station, Zoological Survey of India, Shillong, India, and in the collections of Dr. M.A. Lieftinck, N. Veenendaalseweg 224, Rhenen, the Netherlands respectively.

Male (adult). — Labium pale yellowish. Labrum, frons, clypeus genae, bases of mandibles and vertex as far back as a level running across the anterior and posterior ocelli, yellowish (or yellowish red, as in the paratype, where labrum, frons and clypeus are darker red). A black line at the base of the frons and a narrow stripe of the same colour running across the vertex from one eye to the other at the level of the antennae. Base and apical two segments of antennae also black. Occiput black, marked behind by a pair of narrow, yellowish post-ocular spots. Eyes reddish brown during life, dark brown in preserved specimen. Beneath head black, marked with a small yellowish patch against each eye.

* The new species is named after the eminent entomologist, the late Professor Durgadas Mukherjee of Calcutta University.

Prothorax black, with a large yellowish lateral spot on the mid-lobe. Posterior lobe broadly arched and projected backwards over the synthorax.

Synthorax black, changing to yellowish in the lower half of the metepimeron and beneath. A narrow, complete purplish antehumeral stripe and a similar, but yellowish stripe running in between the two lateral sutures over the spiracle on either side.

Coxae, trochanters and femora yellowish, the last two narrowly black on their extensor surfaces; rest of legs reddish, end of tarsi black. Femora and tibiae armed with 10-12 evenly spaced long spines; those on the femora increasing in length and those of the tibiae decreasing in length, apically. Tarsi with 8-10 very small spines and tarsal claws with a small interior sub-apical tooth.

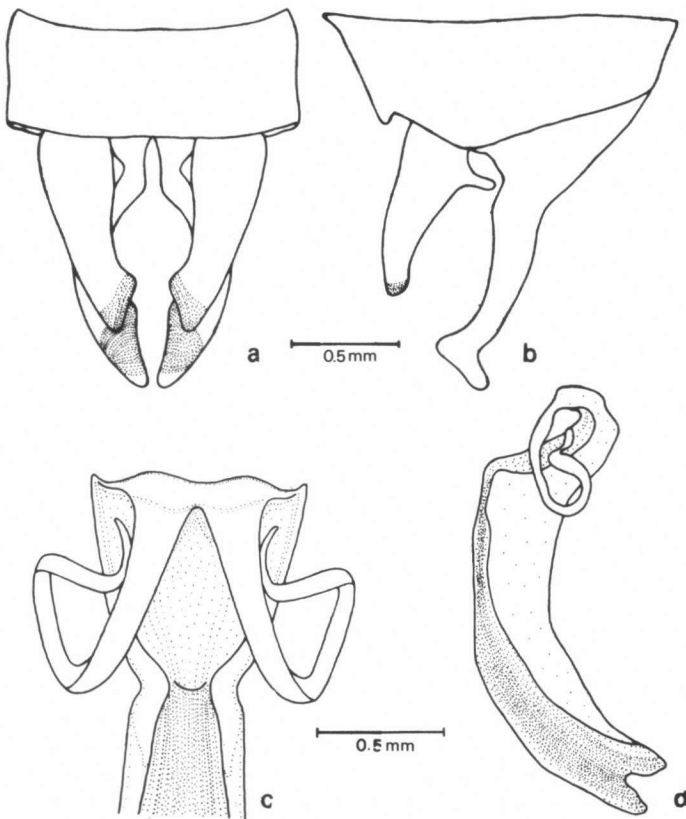


Fig. 1. *Calicnemia mukherjeei* sp. n., male structural details: (a-b) anal appendages, in dorsal and right lateral view respectively; - (c) penis, right lateral view; - (d) apex of penis, dorsal view.

Wings entirely hyaline, venation black. Petiolation begins well proximal to the level of Ac, at the level or slightly proximal to Ax1. Ac situated nearer Ax1 than Ax2 and less than half the length of the basal prolongation of Ab. Only 3 post quadrangular antenodal cells in all wings. Quadrilateral distinctly widened distad, with the relative lengths of the proximal, outer, costal and distal sides of quadrilaterals 7:15:18:26 in the forewing and 6:11:20:28 in the hindwing. Pterostigma covering about one and a half cells, a little longer than broad, diamond shaped, proximal side oblique, outer side broadly oval and little widened; brownish, finely yellow along circumference and enclosed in thick nervures. 15-18 postnodals in forewing, 14-18 in hindwing.

Abdomen pale reddish, except segment 1, which is yellowish, and changing to black on the dorsum from the end of segment 7. Segments 9 and 10 entirely black.

Anal appendages black, reddish at tips and on inner surfaces and shaped as shown in Figure 1 a-b. Inferiors nearly twice as long as segment 10 and about 4/5 as long as the inferiors. Penis as shown in Figure 1 c-d; the shaft without any spines.

F e m a l e (adult). — Differing from male in the following points. Stouter in build. Antennae black, except at tips of 2nd segment, which is yellowish. Anteclypeus with a small black spot on either side. The black stripe running across the vertex at the level of the antennae much broader and extended forward as a broad median dorsal spot on the frons. The yellowish lateral spot on the midlobe of the prothorax larger. Metepimeron and beneath synthorax yellow as also the antehumeral stripe. Upper half of 2nd lateral suture marked with a narrow black stripe. Wings slightly enfumed at apices. Ac nearly as long as basal prolongation of Ab. Quadrilaterals longer, with the relative lengths of proximal, outer, costal and distal sides 6:14:20:30 in the forewing and 5:12:28:35 in the hindwing. 17-18 postnodals in forewing, 15 in hindwing. Legs yellowish without darker markings. Abdominal segments 9 and 10 black only on dorsum. Anal appendages short and conical, black. Ovipositor blackish, stout and extending a little beyond the apex of segment 10.

M e a s u r e m e n t s. — ♂ abdomen including anal appendages 32.5-34.5 mm, hindwing 24.5-25.0 mm — holotype smaller; — ♀ 33.5 mm and 28.5 mm respectively.

REMARKS

Calicnemia mukherjeei sp. n. is very close to *C. miniata* (Selys, 1886), but is larger in size, with the ground colour paler red, and the nodal index a little higher. The two species also differ in some details in the structure of the penis.

So far as is known, *C. mukherjeei* sp. n. is restricted to around Shillong in the altitudinal ranges 1400-1700 meters. The males were collected at the foot of a

small spring falling from some height, shaded with overhanging plants, but the female was collected from dried up nulla, quite far away from water.

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