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## Two new species of *Eutomostethus* Enslin from India (Hymenoptera, Symphyta, Tenthredinidae)

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(With 13 figures)

### Abstract

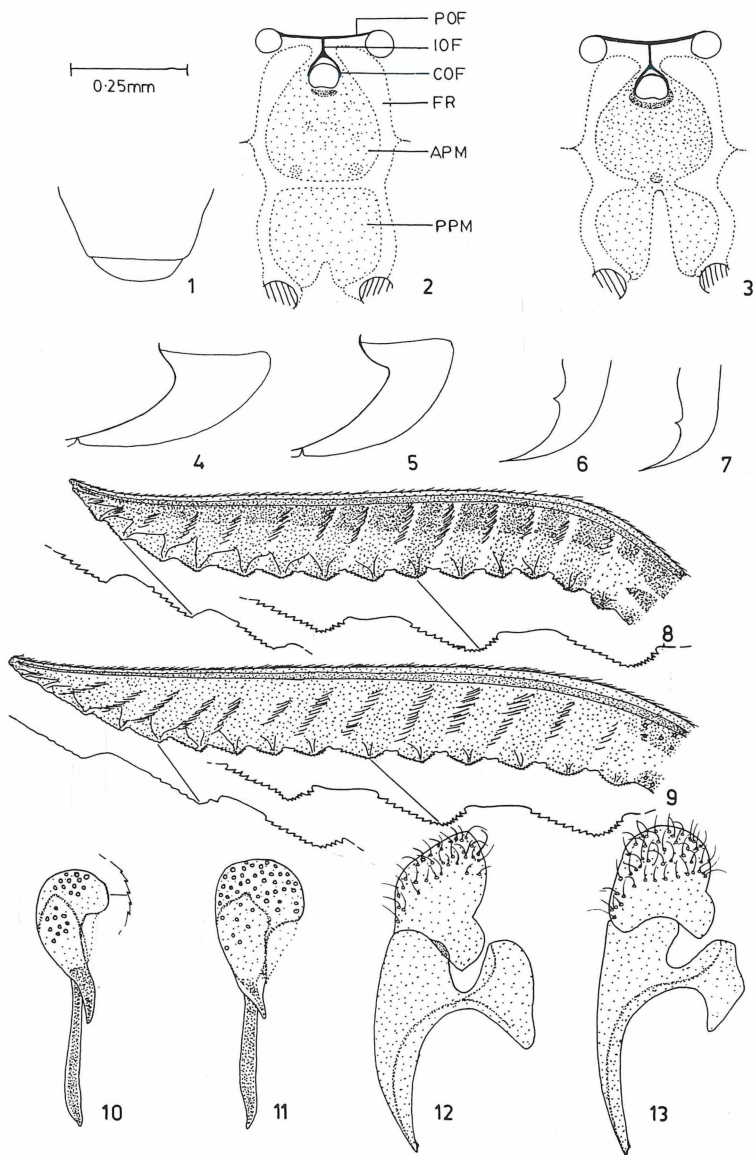
With the addition of two new species, i.e. *E. riatensis* sp. n. and *E. shillongensis* sp. n. from India, the total number of species becomes four. A key for separating all Indian species is provided.

### Introduction

Genus *Eutomostethus* was erected by Enslin (1914) taking *Tenthredo luteiventris* Klug as its type species. Prior to this work only two species, *E. hirticornis* (Rohwer) and *E. assamensis* (Rohwer) were known from this region. These two species were described in the genus *Tomostethus* Konow by Rohwer (1913) but he (1915) transferred them to the genus *Eutomostethus*. *E. riatensis* sp. n. and *E. shillongensis* sp. n. from India are being added to this genus now.

The genus *Eutomostethus* is characterised by: short and stocky antenna, segment 2 as long as broad, segment 2 longer than 4; clypeus truncate; the presence of postgenal carina; postorbital groove indistinct; malar space linear. Prepectus present as raised shoulder, separated from mesepisternum by furrow; tarsal claw is simple or with small inner tooth; foretibial spur is simple. Forewing with stub 2A-3A curved up at apex. Hindwing with crossvein *m-cu* present or absent, leaving cell *M* closed or open.

Abbreviations used in text: APM = anterior part of median fovea; AWMT = apical width of metatibia; CIF = circumocellar furrow; EL = eye length; FR = frontal ridge; IATS = inner apical tibial spur; ICD = inter cenchri distance; IDMO = interocular distance at the level of median ocellus; IOF = interocellar furrow; ITD = intertegular distance; LID = lowerinterocular distance; OATS = outer apical tibial spur; OCL = ocellooccipital line; PMF = posterior part of median fovea; POF = postocellar furrow; POL = postocellar line; UCL = oculooccipital line; UOL = oculoocellar line.



Figs 1-13. *Eutomostethus riatensis* sp. n. (Figs 1, 2, 4, 6, 8, 10, 12) and *E. shillongensis* sp. n. (Figs 3, 5, 7, 9, 11, 13): 1 - clypeus & labrum; 2, 3 - median fovea (frontal view); 4, 5 - ovipositor sheath (lateral view); 6, 7 - tarsal claw; 8, 9 - lancet; 10, 11 - penis valve; 12, 13 - gonoforceps.

*Eutomostethus riatensis* sp. n.

(Figs 1, 2, 4, 6, 8, 10, 12)

**FEMALE.** Colour: body black; whitish-yellow are: extreme apices of all femora; broad outer side of protibia except extreme apex; meso- and metatibiae except faint infuscated extreme apices. Wings faintly infumated; venation including costa, subcosta and stigma piceous.

**Structure:** Average length 4.5 mm. Antenna incrassating before apex, 1.3 x head width; scape and pedicel as long as their apical widths; segment 3 longer than 4 as 5:3; clypeus truncate (Fig. 1); labrum broader than long as 2:1, with deflexed rounded anterior margin; supraclypeal area triangularly raised; LID:IDMO:EL = 3:4:3; hind orbits not carinated; supraantennal pit broad, deep ditch-like; frontal area above level of eyes; supraantennal tubercles distinct and confluent with similarly raised frontal ridges; median fovea distinct and diversible into low lying anterior and raised posterior parts (Fig. 2); anterior part of median fovea almost squarish, deep, having flat bottom with a distinct carina on its anterior end; posterior half of median fovea shallow with uneven bottom having a shallow depression in front of median ocellus; postocellar area convex, broader than long as 2:1; post-, inter- and circumocellar furrows distinct; lateral furrows quite distinct, deep, parallel and abruptly ending just before hypothetical hind margin of head; head narrowing behind eyes; POL:OCL:UOL:UCL = 2:2:3:1; mesoscutellum almost flat, its appendage neither carinated nor grooved; ICD:ITD = 1:4; tarsal claw (Fig. 6) with a very minute, erect subapical tooth and without basal lobe; metabasitarsus subequal to following 3 joints combined as 9:8; IATS:AWMT:OATS = 1:1:1. Lancet (Fig. 8) having 16 serrulae. Ovipositor sheath: see Fig. 4.

**Sculpture and pubescence:** Head impunctate, surface shining; thorax impunctate except posterior slope of mesoscutellum that bears a few, isolated, shallow punctures, surface shining with general oily lustre; abdomen impunctate, shining. Body covered with fuscous pubescence.

**MALE:** Average length 4 mm. Similar to female. Genitalia: penis valve (Fig. 10), gonoforceps (Fig. 12).

**Type material:** Holotype (female), India, Meghalaya, Riat, 1450 m, 29.4.1994, coll. V. Vasu. Deposited at the Zoologisches Museum Hamburg, Reg. No. ZMH 3-1996. Paratypes (3 females, 2 males) with same data as holotype. One female and one male paratypes in ZMH; the remaining types are housed at the Indian Agricultural Research Institute (IARI), Pusa National Collections, Division of Entomology, New Delhi, India.

**Population variation:** Not observed.

**Etymology:** The species is named after its type locality.

**Diagnostic combinations:** The characters distinguishing *E. riatensis* sp. n. from *E. assamensis* (Rohwer) are given in the key. On the basis of the following significant characters, the former taxon can be separated from *E. shillongensis* sp. n.: postcellular area is broader than long, its ratio equal 2:1 (3:2 in *E. shillongensis*); lateral furrows are parallel (excurved in *E. shillongensis*); UOL:UCL = 3:1 (5:3 in *E. shillongensis*); the antennal segment 3 and 4 ratio 5:3 (8:5 in *E. shillongensis*), and frontal area impunctate (distinctly punctated in *E. shillongensis*).

*Eutomostethus shillongensis* sp. n.

(Figs 3, 5, 7, 9, 11, 13)

**FEMALE.** Colour body black, whitish are: apices of all femora, outer side of protibia, meso- and metatibiae except apical rings. Wings lightly infumated; venation including costa, subcosta and stigma black.

**Structure:** Average length 5 mm. Antenna increassating before apex, 1.3 x of the head width; scape and pedicel each as long as its apical width; segment 3 longer than 4, ratio 8:5; clypeus truncate; labrum broader than long as 2:1, with deflexed rounded anterior margin; supraclypeal area almost flat with short, blunt carina; LID: IDMO:EL = 3:4:3; hind orbits not carinated; supraantennal pit broad, ditch-like; frontal area slightly above level of eyes; supraantennal tubercles moderate, slopping backwards and confluent with low lying frontal ridges; median fovea distinct, partly divisible into two parts (Fig. 3); anterior 1/2 of median fovea almost rounded, shallow with flat bottom having a median longitudinal carina; posterior 1/2 of median fovea shallow with uneven bottom having a pit encircling median ocellus; postocellar area convex, broader than long (3:2); post-, inter- and circumocellar furrows distinct; lateral furrows distinct, deep, excurved (bulging) and abruptly ending just before hypothetical hind margin of head; head narrowing behind eyes; POL:OCL:UOL:UCL = 4:4:5:3; mesoscutellum subconvex, its appendage neither grooved nor carinated; ICD:ITD = 1:6; tarsal claw (Fig. 7) with a subapical tooth distinctly shorter than apical one and without basal lobe; metabasitarsus longer than following 3 joints combined as 4:3; IATS:AWMT: OATS = 1:1:1. Lancet (Fig. 9) with 14 serrulae. Ovipositor sheath: see Fig. 5.

**Sculpture and pubescence:** Head with few distinct punctures on frontal area, surface shining; thorax impunctate, except posterolateral slope of mesoscutellum that bears a few, shallow, isolated puncture, surface smooth and shining with general oily lustre; abdomen impunctate, shining. Body covered with fuscous pubescence.

**MALE:** Average length 4 mm. Similar to female. Genitalia: penis valve - see Fig. 11; gonoforceps - see Fig. 13.

**Type material:** Holotype (female), India, Meghalaya, Shillong, 1450 m, 5.5.1994, coll. V. Vasu. Deposited at the Zoologisches Museum Hamburg (ZMH), Reg. No. 4-1996. Paratypes (2 females, 4 males) with same data as holotype. Two male paratypes in ZMH (Reg. No. as above); the remaining specimens are housed at Indian Agricultural Research Institute (IARI), Pusa National Collections, Division of Entomology, New Delhi, India.

**Population variation:** Not observed.

**Etyymology:** The species name is derived from its type locality.

**Diagnostic combinations:** *E. shillongensis* sp. n. differs from its allied species *E. assamensis* through some significant characters such as: lateral furrows excurved (parallel in the latter taxon); antennal segment 3 and 4 ratio 8:5 (3:2 in the latter one); supraantennal pit ditch-like (shallow in *E. assamensis*); the ratio UOL:UCL = 5:3 (4:3 in the latter one), metabasitarsus longer than following 3 joints combined (equal in *E. assamensis*) and metabasitarsus black (basal 2/3 whitish in the latter species).

## Key to Indian species of *Eutomostethus*

1. Thorax entirely black ..... 2
- Thorax mainly auratus ..... *E. hirticornis* (Rohwer)
2. Lateral furrows parallel ..... 3
- Lateral furrows excurved (bulging) ..... *E. shillongensis* sp. n.
3. Postocellar area broader than long, its ratio 3:2; supraantennal pit almost rounded, with a small central protuberance; clypeus truncate with a shallow median notch; post- and circumocellar furrows shallow ..... *E. assamensis* (Rohwer)
- Postocellar area broader than long and its ratio 2:1; supraantennal pit deep, ditch-like, without any central protuberance; clypeus truncate; post- and circumocellar furrows distinct ..... *E. riatensis* sp. n.

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## Zusammenfassung

Es werden zwei neue Pflanzenwespenarten *Eutomostethus riatensis* sp. n. und *E. shillongensis* sp. n. (Hymenoptera, Tenthredinidae) aus Indien beschrieben. Ein Bestimmungsschlüssel für alle vier indischen Arten dieser Gattung wird präsentiert.

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