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

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#### 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, sperarated 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 crosswein $m$-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; $\mathrm{FR}=$ frontal ridge; $I A T S=$ 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; $\mathrm{PMF}=$ posterior part of median fovea; $\mathrm{POF}=$ postocellar furrow; $\mathrm{POL}=$ postocellar line; $\mathrm{UCL}=$ oculooccipital line; $\mathrm{UOL}=$ 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 $\mathrm{sp} . \mathrm{n}$.

(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, $1.3 \times$ 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).

Typematerial: 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.
Diagnosticcombinations: 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 $\mathrm{sp} . \mathrm{n}$. : 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, $1.3 \times$ 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.

Typematerial: Holotype (female), India, Meghalaya, Shillong, $1450 \mathrm{~m}, 5.5 .1994$, 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.
Etymology: The species name is derived from its type locality.
Diagnosticcombinations: 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, ditchlike, 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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