Abstract: A new species of the genus Eubroncus Yoshimoto, Kozlov & Trjapitzin is described from India and a key to world species is provided.

Keywords: Eubroncus scutatus sp. nov., Hymenoptera, India, Karnataka, Mymaridae, new species, Tamil Nadu.

Abbreviations: YPT - Yellow pan trap; F - 1-6 Funicle segments; Gt - Gastral tergite 1; Gs - Gastral sternite 1; OD - Mid ocelli diameter; POD - Post ocelli diameter; OOL - Ocular-ocelli distance; OCL - Least post ocellus-occipital margin length; POL - Postocelli distance; MOL - Least mid ocellus-occipital margin length.

Genus Eubroncus was erected by Yoshimoto et al. (1972) under the subfamily Eubroncinae, that includes two genera, Eubroncus Yoshimoto, Kozlov & Trjapitzin and Stomarotrum Yoshimoto, Kozlov & Trjapitzin, based on prominent mandibles that were almost as long as the head height. Eubroncus was erected with E. orientalis Yoshimoto, Kozlov & Trjapitzin (male) as the type species from Malaysia, and Stomarotrum with S. prodigiosum Yoshimoto, Kozlov & Trjapitzin (female) from the Russian Far East. Later Triapitsyn & Huber (2000) synonymized Stomarotrum with Eubroncus. Triapitsyn & Berezovskiy (2002) redescribed E. prodigiosus (Yoshimoto, Kozlov & Trjapitzin) and keyed males of the two known species based on color of mesosoma and whether the pronotum is divided or not. Viggiani (2003) described the male genitalia of E. prodigiosus from Japan. Lin et al. (2007) recorded an unidentified species from Australia. Hayat & Khan (2009) described the third species, E. indicus Hayat & Khan, from a single female from India. Jin & Li (2014) described three additional species, E. vertexus Jin & Li, E. bani Jin & Li and E. tibetanus Jin & Li, from China. Here we describe the second species from India and seventh from the world.
**MATERIALS AND METHODS**

Collections were made using yellow pan traps as described by Noyes (1982) from sandalwood forest area of Institute of Wood Science and Technology (IWST), Bengaluru, Karnataka and Oilpalm ecosystem, Mulakadu, Kallakuruchi Taluk of Tamil Nadu. Specimens were processed using hexamethyldisilazane as described by Brown (1993) and either card, point or slide mounted, labeled and studied. All specimens are deposited with Entomology Department, Annamalai University (EDAU), Chidambaram, Tamil Nadu, India and National Bureau of Agricultural Insect Resources (NBAIR) (formerly NBAII), Bengaluru, Karnataka, India. All measurements (except habitus images) are actual divisions under 40x (One division = 0.0025mm). Montage images were captured using Leica DM 750 phase contrast microscope for slide mounted parts and the habitus images using Leica M205C stereo zoom microscope.

**RESULTS**

**Eubroncus scutatus**

Manickavasagam & Palanivel sp. nov. (Images 1–11)  
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Materials examined


**Paratypes**: EDAU/Mym10/2014, 4.viii.2014, one male on slide under five coverslips with same data as in Holotype. Two females and two males [1 female & 1 male on slide under five coverslips with NBAIR, Bengaluru (ICAR/NBAIR/P225)], [1 female & 1 male on card with EDAU], yellow pan traps, oil palm ecosystem, Mulakadu, Kallakuruchi Taluk, coll. Gowthaman & Abhinav Kumar.

**Female (Image 1)**

(Holotype) Body length 0.81mm. Head black with oceli and brown mandibles and eyes dirty pink. Antenna dark brown with radicle yellowish-brown; mesosoma dark brown; wings more or less uniformly infuscate, with paler spots below base of marginal vein; all legs uniformly brown with ovipositor light brown.

Head (Image 3) 1.4x as long as wide; eyes sub triangular, 2.3x as long as wide, finely setose. Vertex smooth, 1.6x as long as wide. Mid ocellus more or less round, postocelli oval. MOL 1.7x as long as OD; OCL equal to POD; POL 0.28x as long as OOL. Mandible (Image 4) 0.69x as long as head and 1.6x as long as vertex in dorsal view. Antenna (1161) (Image 5) with radicle 0.30x as long as scape; scape 4.3x as long as wide; pedicel 1.7x as long as wide, and 2.8x as long as F1; F1 without sensilla, F2–F6 each with two longitudinal sensillae; clava shorter than scape, 2.4x as long as wide, with six visible longitudinal sensillae.
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Mesosoma (Image 9) 1.9x as long as wide. Pronotum 0.59x as long as wide, with a faint longitudinal carina medially, each lobe with about 25 setae dorsally, with reticulate sculpture ventrally. Mesoscutum 0.91x as long as pronotum, strongly reticulate (Image 10), with a pair of strong setae at posterolateral angle, lateral lobes also sculptured and again with a seta in each lobe posterolaterally. Axilla with longitudinal carinae laterally fading towards anterior scutellum, with one strong seta in each axilla, posterior end with reticulate sculpture. Scutellum 1.19x as long as mesoscutum, anterior scutellum with two placoid sensillae at middle, post scutellum with 2–3 longitudinal carinae on lateral sides and strongly foveate on the entire anterior margin; whole mesosoma ventrally reticulately sculptured. Metanotum band like medially and narrowing laterally and reticulately sculptured anterodorsally. Propodeum 0.82x as long as mesoscutum, and 0.67x as long as scutellum, with strong reticulate sculpture medially and laterally and with a pair of setae. Mesophragma broadly ‘v’ shaped almost reaching posterior margin of propodeum.

Fore wing (Image 7) 4.0x as long as wide, longest marginal cilia about 0.33x as long as maximum wing width; submarginal vein with eight, marginal vein with six setae along anterior margin. Hind wing (Image 8) 9.0x as long as wide, longest marginal cilia about 0.77x as long as maximum wing width. Legs: fore coxae 2.8x as long as wide; fore, mid and hind coxae respectively very faintly, faintly and strongly reticulately sculptured.

Metasoma (Image 11) petiole as long as wide with short spine like projections anterolaterally, and with...
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Relative measurements: OD 7, OCL 4, OOL 14, POL 4, POD 4, MOL 12.

Male (Image 2)

Body length 0.78mm. Similar to female except for normal sexually dimorphic characters and following: Antenna with all flagellar segments longer than wide, each with two sensillae.


Host
Unknown.

Distribution
India: Karnataka and Tamil Nadu.

Etymology
This species is named after the species specific character of mesoscutum with reticulate sculpture.

Comments
Eubroncus scutatus can be separated from the closest species E. vertexus by its smooth vertex and sculptured mesoscutum (in vertexus vertex covered with scale-like sculpture and mesoscutum smooth), postscutellum with strong fovea along entire anterior margin (in vertexus fovea present only medially). Among other known species of Eubroncus, E. prodigiosus has scutum with faintly reticulate sculpture, but antennal measurements and wings are different [(in scutatus, scape is 4.3x as long as wide, in prodigiosus it is only 3x); fore wings 4x as long as wide in scutatus, 3.7x in prodigiosus; hind wings 9x long as wide in scutatus where as it is 7.8 to 8.2x in prodigiosus].

Key to world species of Eubroncus (males and females)

(Note: females are not known for E. orientalis; males are not known for E. indicus, E. bani and E. tibetanus).

(Modified from Jin & Li 2014)

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<th>Key</th>
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<td>Fore wing with a notch on basal third of posterior margin (Yoshimoto et al. 1972, Image 4)</td>
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<td>E. vertexus</td>
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References
