

**A REVIEW OF THE GENUS *STILBULA* SPINOLA, 1811
(HYMENOPTERA: EUCHARITIDAE) FROM THE INDIAN
SUBCONTINENT WITH THE DESCRIPTION OF FIVE NEW
SPECIES OF FROM KERALA**

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ABSTRACT: Five new species of eucharitid wasps (Hymenoptera: Eucharitidae) are described from Kerala, India. A key to species from the Indian subcontinent and an updated checklist of Oriental species are also provided.

KEY WORDS: Hymenoptera, Eucharitidae, *Stilbula*, new species, review, key, checklist, Indian subcontinent

The genus *Stilbula* was erected by Spinola (1811) based on the type species *Ichneumon cyniformis* Rossi. The genus belongs to the tribe Eucharitini of the subfamily Eucharitinae (Heraty, 2002). Thirty five species are known from all over the world of which 16 species were from Oriental Region and 9 species were recorded from Indian subcontinent (Girish Kumar & Narendran, 2008; Heraty, 2002; Noyes, 2015). In this paper, the genus *Stilbula* Spinola is reviewed from the Indian subcontinent with the description of 5 new species from Kerala. A key to the species of the Indian subcontinent and an updated checklist of Oriental species are also provided.

The types are deposited in the 'National Zoological Collections' of the Western Ghat Regional Centre, Zoological Survey of India, Kozhikode (= Calicut), India (ZSIK).

MATERIAL AND METHODS

The specimens are collected by using triangular sweep net and also by using malaise trap. They are studied under LEICA M60 stereozoom microscope and images captured with the camera model LEICA DFC-450. The drawings were done using the drawing tube of the same Leica microscope.

Abbreviations used for the Museums: BMNH – Natural History Museum (or British Museum of Natural History), London, UK; CNCI – Canadian National Collection, Agriculture Canada, Ottawa, Ontario, Canada; NZC – Zoological survey of India, Kolkata, India; QMB – Queensland Museum, Brisbane, Australia; USNM – United States Museum of Natural History, Washington D.C., USA; ZSIK – Zoological Survey of India, Western Ghats Regional Centre, Kozhikode, India.

Abbreviations used for the terms used in the text: F = Funicular segment; Gt = Gastral terga; MPS = Multiporous plate sensilla; MV = Marginal vein; OOL = Ocellular line; PMV = Postmarginal vein; POL = Postocellar line; SSS = Scutoscutellar sulcus; STV = Stigmal vein.

Genus *Stilbula* Spinola

Stilbula Spinola, 1811: 150. Type species: *Ichneumon cyniformis* Rossi, by monotypy.

Eltolada Cameron, 1909: 230. Type species: *Eltolada trimaculata* Cameron. Subsequently designated by Gahan & Fagan, 1923: 50. Synonymy by Hedqvist, 1978: 245.

Diagnosis. Body metallic blue, green or yellow with dark maculations; in lighter forms head black or black with a metallic luster; antennal flagellum simple, 12 segmented, rarely 11 in females; scape less than 1.5x as long as broad; basal flagellomere in males long, often slightly flattened; hypostomal lobes broadly separated posterior to the mandibles; maxillary complex relatively large, without palpi; frenal projection arises from a single basal stalk and diverges in to a pair of short cylindrical spines, although the apex rarely projecting and truncate or narrowly emarginate; propodeum slightly swollen laterad to postspiracular furrow; fore wing slightly lanceolate, bare; costal cell narrow; stigma broad, triangular; hind wing broad, venation complete; petiole usually long, cylindrical and smooth; first gastral tergite has a single split medially.

Distribution. Widespread in the Old World.

Key to species of *Stilbula* Spinola, 1811 from the Indian subcontinent

1. Female 2
– Male 8
2. Striations on frons strong, completely striated more or less in a circular manner (Fig. 9 of Narendran & Sheela, 1996: 67, Fig. 21D of Mani et al., 1974: 38) 3
– Striations on frons weak, with longitudinal striations mostly on upper half (Figs. 15, 26) 6
3. Petiole without a distinct ring or band 4
– Petiole with a brownish or blackish ring or band at or near middle, rest of portions pale yellow or white or pale brown 5
4. Petiole brownish black to very dark brown; scutellar teeth about 0.30x scutellar process (Fig. 20 B of Mani et al., 1974: 37); scutellar process subequal to scutellum; F1 7x as long as broad; head nearly black with blue reflections *S. atkinsoni* (Mani & Dubey, 1974)
– Petiole pale yellow; scutellar teeth about half (0.5x) of scutellar process (Fig. 22); scutellar process distinctly shorter (0.28x) than median length of scutellum; F1 3.33x as long as broad; head metallic green *S. silentvalliensis* Girish Kumar **sp. nov.**
5. Scutellar teeth bluntly and shortly bifurcate, not diverging; flagellar segments not shorter (see Fig. 21 B of Mani et al., 1974: 38) *S. mysorensis* (Mani & Dubey, 1974)
– Scutellar teeth diverging; flagellar segments shorter (Fig. 8 of Narendran & Sheela, 1996: 67) *S. ashokai* Narendran, 1996
6. Petiole without a ring or band *S. shendurunica* Girish Kumar **sp. nov.**
– Petiole with a brownish or blackish ring or band at or near middle, rest of portions pale yellow or white or pale brown 7
7. Scutellar process with a single narrow frenal spine (see Fig. 309 of Heraty, 2002: 327); flagellum testaceous; mesoscutal side lobes swollen; body dark brown with bluish reflections; labrum with 6 digits; body length 2.5 mm *S. minispina* Heraty, 2002
– Scutellar process with a slender elongate stalk (Fig. 27); flagellum dark brown to black; mesoscutal side lobes rounded; body black with dark green metallic reflections; labrum with 9 digits; body length 5 mm *S. tanjorensis* (Mani & Dubey, 1974)

8. Scutellum with an upturned, smooth, cleft frenal process (see Fig. 310 of Heraty, 2002: 327); funicular segments slightly swollen apically (see Fig. 321 of Heraty, 2002: 327); head black with green reflections; mesosoma mostly black with bluish green reflections, lower half of mesoscutum, upper corner of prepectus, acropleuron and propodeum yellow; wings hyaline except a small infuscate spot around STV (see Fig. 322 of Heraty, 2002: 327); labrum with 9 digits *S. nilgiri* Heraty, 2002
– Scutellum not as above; other characters partly or completely different 9
9. Gastral petiole of uniform colour; Body generally with dark metallic green reflections; head black; coxae concolourous with mesosoma, rest of legs brown; antenna brownish yellow; gaster dark metallic green, terminal segment somewhat brown along margins; head coarsely and umbilicately punctate; antenna with dense pubescence; pedicel short and transverse; fore wing with stigma sessile; PMV very long; scutellar process bidentate, about as long as gastral petiole *S. indica* (Mani, 1935)
– Gastral petiole with dark ring or band medially or submedially; other characters partly or completely different 10
10. Posterior process of scutellum with a slender elongated stalk diverging into elongated spines (see Fig. 5 of Girish Kumar & Narendran, 2007: 2869); frons with weak longitudinal striations seen mostly on upper half (see Fig. 4 of Girish Kumar & Narendran, 2007: 2869); body black with dark green or shiny bluish green with metallic reflections; stigma distinct (see Fig. 1 of Girish Kumar & Narendran, 2007: 2869); mesopleuron with a large smooth area (see Fig. 1 of Girish Kumar & Narendran, 2007: 2869); mouth plate 8 or 9 digitate *S. tanjorensis* (Mani & Dubey, 1974)
– Posterior process of scutellum stouter (Figs. 4, 8); other characters partly or completely different 11
11. Mesopleuron distinctly and closely punctate without a patch of smooth area
..... *S. lata* Narendran, 1996
– Mesopleuron (Figs. 1, 6, 10) with a distinct smooth area on anterior half 12
12. POL 2x or more than 2x (2.25 - 2.85x) OOL 13
– POL less than 2x (1.60 - 1.68x) OOL 15
13. Fore wing with brown infumation adjoining stigma *S. ashokai* Narendran, 1996
– Fore wing without brown infumation adjoining stigma (Fig. 10) 14
14. POL 2.80 x OOL (Fig. 4 of Girish Kumar & Narendran, 2008: 114); head and mesosoma black with metallic green reflections; base of coxa brown with metallic green reflections; body length 6.28 mm; stalk of scutellar process as long as broad (Fig. 4 of Girish Kumar & Narendran, 2008: 114); mouth plate 8 digitate (Fig. 3 of Girish Kumar & Narendran, 2008: 114); hamuli 7 in number *S. bangalorica* Girish Kumar & Narendran, 2008
– POL 2.42x OOL (Fig. 13); head and mesosoma dark brown with metallic black reflections; lateral ocellus reflecting red; base of coxa dark brown without metallic green reflections; body length 4.77 mm; stalk of scutellar process 0.86x as long as broad (Fig. 13); mouth plate 9 digitate (Fig. 12); hamuli 3 in number *S. namida* Girish Kumar **sp. nov.**
15. Stalk of scutellar process (excluding teeth) 0.86 x as long as broad (Fig. 4); STV perpendicular to wing margin and finger like (Fig. 1); petiole 1.42x as long as hind femur (Fig. 1); F1 1.27x as long as F2; body length 4.47 mm; hamuli 3 in number
..... *S. bullista* Girish Kumar **sp. nov.**
– Stalk of scutellar process (excluding teeth) 1.21x as long as broad (Fig. 8); STV angled to wing margin and stout (Fig. 6); petiole 1.62x as long as hind femur (Fig. 6); F1 1.44x as long as F2; body length 5.96 mm; hamuli 4 in number .. *S. muthangensis* Girish Kumar **sp. nov.**

***Stilbula ashokai* Narendran, 1996**

(Image 1)

Stilbula ashokai Narendran, in Narendran & Sheela, 1996: 69-70. Holotype female (examined), India: Kerala, Malampuzha (QMB), by original designation. Description of both sexes, illustrated.

Diagnosis. Head width (Fig. 9 of Narendran & Sheela, 1996: 67) in frontal view 1.50x (in female) and 1.60x (in male) its median length excluding mandibles; POL 2.50 x OOL; median ocellus separated from occipital margin by less than its own diameter; frons with more or less oblique and semicircular striations (Fig. 9 of Narendran & Sheela, 1996: 67) extending from ocellar area to supraclypeal and clypeal margins; clypeus and supraclypeal areas smooth; vertex longitudinally striated; mouth plate 14 digitate; gena obliquely striate; tentorial pits and clypeogenal sulci distinct, deep; eye separated by less than 2x height of eye in frontal view; antenna 12 segmented (Fig. 8 of Narendran & Sheela, 1996: 67), more elongated in male (Fig. 11 of Narendran & Sheela, 1996: 67); mesoscutum and scutellum deeply and closely punctate, interstices carinate; notauli distinct, foveolate; mesoscutum without a median fovea; SSS ecarinate; width of scutellar stalk subequal to its length (excluding teeth); scutellum with a median longitudinal pitted fovea; mesopleuron (Fig. 8 of Narendran & Sheela, 1996: 67) with a smooth area on anterior half; propodeum completely punctate, interstices carinate, without a median carina; callus bare; fore wing (Fig. 8 of Narendran & Sheela, 1996: 67) 2.83x as long as its maximum width; petiole smooth, distinctly shorter than gaster, longer than hind femur, slightly swollen at middle; gaster shorter than mesosoma, subglobose, smooth.

Colour. Head and mesosoma black with metallic refringence; antenna yellowish brown with scape, pedicel, last two funicular segments and club paler; coxae brown, remaining parts of legs straw yellow; fore wing with brown infumation adjoining STV (Fig. 8 of Narendran & Sheela, 1996: 67); petiole yellow with pale brown band in middle; gaster yellowish brown with Gt1 black.

Length. Female 4.1 mm; Male 3.43 mm.

Host & Biology. Unknown.

Material examined. *Holotype.* Female, INDIA: Kerala, Palakkad Dist., Malampuzha (10°53'N 76°46'E), Coll. T.C. Narendran, 10.i.1986 (QMB). *Paratypes.* 2 Females and 4 Males, INDIA: Kerala, Palakkad Dist., Malampuzha (10°53'N 76°46'E), Coll. T.C. Narendran, 10.i.1986, NZC Regd. Nos. 10205/H3-10207/H3 & 10209/H3-10211/H3; 1 Female, INDIA: Kerala, Thiruvananthapuram Dist., Sreekaryam (8°30'N 76°57'E), Coll. T.C. Narendran, 25.ii.1989, NZC Regd. No. 10204/H3. *Other material examined:* 1 Male, INDIA: Kerala, Thrissur, Coll. K. Rajmohana, 23.ii.1996, ZSI Regd. No. ZSI/WGRS/I.R-INV. 6242; 2 Male, INDIA: Kerala, Ernakulum, Coll. T.C. Narendran, 9.ii.1989, ZSI/WGRS/I.R-INV. 6243 & 6244; 1 Male, INDIA: Kerala, Palakkad Dist., Parambikulam WLS, Coll. P.M. Sureshan, 5.ii.1995, ZSI/WGRS/I.R-INV. 6245; 3 Male, INDIA: Kerala, Malappuram Dist., Cali. Uni. Campus, Coll. B.K. Sajitha, A.M. Smitha & Lakshmi, 10.x.1998, 4.ii.1999 & 4.iv.1999, ZSI/WGRS/I.R-INV. 6246-6248.

Distribution. India: Kerala, Tamil Nadu.

***Stilbula atkinsoni* (Mani & Dubey, 1974)**

Schizaspidia atkinsoni Mani & Dubey in Mani et al, 1974: 36. Holotype female, Burma: Badaung Reserve, Schwebo (USNM). Description of female, illustrated.

Stilbula atkinsoni; Hedqvist, 1978: 246. Change of combination.

Diagnosis. Female. Frons finely striate, face below smooth, with sparse microscopic punctures; clypeus almost straight anteriorly; gena obliquely closely

striate (Fig. 20D of Mani et al., 1974: 37); F1 7x as long as broad; F2 0.7x F1; scutellar process subequal to scutellum (Fig. 20B of Mani et al., 1974: 37), teeth narrow, widely diverging, teeth 0.3x scutellar process; fore wing as in Fig. 20A of Mani et al. (1974: 37); petiole 0.55x as long as gaster, 0.70x as long as mesosoma, slender, elongate, cylindrical, smooth, abruptly thicker at middle.

Colour. Body dark metallic blue green; head nearly black with blue reflections; antennae brownish black; wings hyaline; fore wing with brown infumation adjoining STV becoming fainter behind; veins dark brown; coxae concolorous with mesosoma, rest of legs brown; petiole brownish black to very dark brown; gaster black.

Length. Female 5.2 mm.

Male. Unknown.

Host & Biology. Unknown.

Distribution. Myanmar: Badaung Reserve, Schwebo.

Remarks. No specimens were available for studies; hence the diagnosis was taken from Mani et al. (1974).

***Stilbula bangalorica* Girish Kumar & Narendran, 2008**

(Image 2)

Stilbula bangalorica Girish Kumar & Narendran, 2008: 114-116. Holotype male (examined), India: Karnataka, Bangalore (NZC), by original designation. Description of male, illustrated.

Diagnosis. Male. Head 1.53x as broad as high (excluding mandibles) (Fig. 3 of Girish Kumar & Narendran, 2008: 114) in frontal view; POL 2.85 x OOL; median ocellus separated from occipital margin by less (0.42x) than its own diameter; frons finely carinate, carinae converging below toruli; lower face transversely carinate; vertex smooth laterad to ocelli, rugose medially; eyes separated by 1.79x their height, bare; clypeus smooth basally, transversely striate apically; labrum with 8 digits; F1 1.34 x as long as F2; antenna distinctly longer than combined length of head, mesosoma and petiole (15: 11.9); mesoscutum and scutellum deeply and closely punctate, interstices carinate, surface bare; notauli distinct and foveolate; SSS deeply impressed and strongly carinate; frenal process stout, pitted; each tooth of posterior scutellar process shorter than its stalk, stalk as long as wide (Fig. 3 of Girish Kumar & Narendran, 2008: 114); mesepisternum with a smooth area (Fig. 1 of Girish Kumar & Narendran, 2008: 114); Fore wing 3.35x as long as broad; hamuli 7 in number; petiole 0.85 x as long as gaster, 5.66x as long as hind coxa, 1.70x as long as hind femur, smooth and swollen submedially; Gt₁ glabrous.

Colour. Head and mesosoma black with metallic green reflections; antenna yellowish brown; mandibles yellow with brownish tinge; coxae dark brown with metallic green reflections except apices near to trochanters brownish yellow, remaining parts of legs yellow; tegulae brown; wings hyaline except for small infuscate spot around STV, venation brown; petiole yellow with pale brown band submedially; upper half of gaster dark brown, lower half pale brown.

Length. Male 6.28 mm.

Female. Unknown.

Host & Biology. Unknown.

Material examined. *Holotype.* Male, INDIA: Karnataka; Bangalore (12°58'N 77°35'E), Coll. C.A. Virakthamath, 6.x.1989, NZC Regd. No. 9996/H3. *Paratypes.* 9 Males, Same data as of holotype, NZC Regd. Nos. 9997/H3-10005/H3.

Distribution. India: Karnataka.

***Stilbula bullista* Girish Kumar sp. nov.**

(Figs. 1-5; Image 3)

Holotype. Male. Length 4.47 mm. Head and mesosoma dark brown with metallic black reflections; antenna brownish yellow; mandibles yellowish brown; ocelli reflecting yellowish brown; eyes brown with silvery white reflections; coxae brown, remaining parts of legs pale brownish yellow, claws brown; tegula brown; wings hyaline except for small infuscate spot around STV, venation pale brown; petiole brownish yellow with brown band submedially; upper half of gaster dark brown, lower half pale brownish yellow.

Head. 1.49x as broad as high (excluding mandibles) (Fig. 3) in frontal view; POL 1.66x OOL; median ocellus separated from occipital margin by less (0.62x) than its own diameter; frons finely carinate, carinae converging below toruli; face with protuberances, lower face transversely carinate; vertex striate laterad to ocelli, rugose medially; eyes separated by 1.85x their height, bare; malar space 0.68x height of eye; clypeus smooth without protuberances; lower margin of clypeus with transverse striations; supraclypeal area not defined; apical tooth of mandible long and thin. Antenna (Fig. 2) 12 segmented; scape as long as broad; funicle 9 segmented; F1 4.20x as long as broad, 1.27x as long as F2; flagellomeres slightly swollen apically; scape and pedicel bare, flagellar segments densely pilose; MPS absent; antennal length shorter than the combined length of head, mesosoma and petiole (10.6: 12).

Mesosoma. Mesoscutum and scutellum deeply and closely punctate, interstices carinate, bare; notauli distinct and foveolate; SSS deeply impressed and strongly carinate; scutellum (Fig. 4) broadly rounded with a slight median furrow, 1.56x as broad as the distance between SSS and frenal carina (including axilla); frenal line smooth and complete dorsally; frenal process stout; pitted; each tooth of posterior scutellar process shorter than its stalk; stalk 0.86x as long as wide; propodeum (Fig. 5) completely punctate, interstices carinate, without a median fovea, bare; callus bare; mesepisternum with a smooth area (Fig. 1); upper mesepimeron completely punctate, interstices carinate; femoral groove broad, transversely carinate, swollen anterior to mid coxa. Fore and mid coxa almost smooth with few faint striations at base, bare; mid coxa without ventral sulcus; hind coxa almost glabrous with very minute pits and hairs; all femora almost glabrous. Fore wing (Fig. 1) 3.01 x as long as broad; STV perpendicular to wing margin, 2x as long as broad, finger-like, surrounded by brown infumation; PMV 4.50x STV; wing disc with microtrichia except at basal area bare; hind wing with microtrichia and marginal fringes; hamuli 3 in number.

Metasoma (Fig. 1). Petiole 0.86x as long as gaster, 5.47x as long as hind coxa, 1.42x as long as hind femur, smooth, slightly swollen submedially; Gt, glabrous.

Female. Unknown.

Host & Biology. Unknown.

Etymology. The species epithet is an anagram of the generic name '*Stilbula*'.

Material examined. *Holotype.* Male, INDIA: Kerala, Malappuram Dist.; Pullangode Reserve Forest, Chenappadi (11°12'N 76°20'E), Coll. P.M. Sureshan & Party, 1.v.1993, ZSI Regd. No. ZSI/WGRS/I.R-INV. 6249.

Distribution. India: Kerala.

Discussion. This new species closely resembles to *S. lata* Narendran (1996) in having: (1) Posterior process of scutellum stouter; (2) Petiole with dark ring or band submedially, shorter than gaster; (3) Median ocellus separated from occipital margin by less than its own diameter and (4) Hamuli 3 in number. However, this new species differ from *S. lata* in having: (1) Mesopleuron without a smooth area anteriorly (In *S. lata* mesopleuron completely punctate without a

smooth area); (2) Scutellar process (excluding teeth) shorter (0.86x) than its width (In *S. lata* scutellar process (excluding teeth) longer (1.30x) than its width); (3) STV finger-like and its margins clear (In *S. lata* margins of STV not clear); (4) POL 1.60x OOL (In *S. lata* POL 2.50x OOL); and (5) Head and mesosoma dark brown with metallic green refringence (In *S. lata* head and mesosoma bluish green with metallic refringence).

This new species is also close to *S. muthangensis* Girish Kumar sp. nov. in having: (1) Scutellar process stout; (2) Head and mesosoma dark brown with metallic black reflections; (3) Antenna brownish yellow; (4) Fore wing with infumation adjoining stigma; (5) Median ocellus separated from occipital margin by less than its own diameter and (6) Mesopleuron with a smooth area. However, this new species differs from *S. muthangensis* sp. nov. in having: (1) Stalk of scutellar process (excluding teeth) 0.86x as long as broad (In *S. muthangensis* stalk of scutellar process (excluding teeth) 1.21x as long as broad); (2) STV perpendicular to wing margin and finger like (In *S. muthangensis* sp. nov. STV angled to wing margin and stout); (3) Petiole 1.42x as long as hind femur (In *S. muthangensis* sp. nov. petiole 1.62x as long as hind femur); (4) F1 1.27x as long as F2 (In *S. muthangensis* sp. nov. F1 1.44 x as long as F2); (5) Body length 4.47 mm (In *S. muthangensis* sp. nov. body length 5.96 mm); and (6) Hamuli 3 in number (In *S. muthangensis* sp. nov. hamuli 4 in number).

***Stilbula indica* (Mani, 1935)**

Schizaspidia indica Mani, 1935: 254. Holotype male, Assam (NZC). Description of male.

Stilbula indica; Hedqvist, 1978: 247. Change of combination.

Diagnosis. Male. Head coarsely, umbilicately punctate; antennae elongate, densely hairy, segments cylindrical; pedicel very short, transverse; fore wing with MV shorter than SMV, STV sessile; PMV very long; scutellar process bidentate, about as long as petiole.

Colour. Body generally black with dark metallic green reflections; head black; antenna brownish; coxa concolorous with mesosoma, rest of the legs brown; gaster dark metallic green, terminal segment somewhat brown along the margins; wings hyaline.

Length. 4 mm.

Female. Unknown.

Host & Biology. Unknown.

Distribution. India: Assam.

Remarks. No specimens were available for studies; hence the diagnosis was taken from Mani (1935, 1989).

***Stilbula lata* Narendran, 1996**

(Image 4)

Stilbula lata Narendran, 1996: 69-70. Holotype female (examined), India: Kerala, Kayamkulam (NZC), by original designation. Description of male, illustrated.

Diagnosis. Male. Head width (Fig. 6 of Narendran & Sheela, 1996: 67) in frontal view 1.60x its median length (excluding mandibles); POL 2.50x OOL; median ocellus separated from occipital margin by less than its own diameter; frons with distinct oblique and semicircular striations (Fig. 6 of Narendran & Sheela, 1996: 67); clypeal area slightly striate, shiny; supraclypeal area smooth, shiny; clypeogenal sulci and tentorial pits deep and distinct; vertex and scrobe longitudinally and transversely striate, upper part of scrobe rugoso-punctate; mouth plate 12 digitate; eyes separated in front view by 1.80x height of eye; mesoscutum and scutellum deeply and closely punctate; scutellum with a median

longitudinal fovea; each tooth of posterior scutellar process shorter than its stalk, 1.30x as long as its width (Fig. 7 of Narendran & Sheela, 1996: 67); propodeum completely punctate without median carina; mesopleuron distinctly and closely punctate without a patch of smooth area; fore wing (Fig. 5 of Narendran & Sheela, 1996: 67) 2.90x as long as its maximum width; petiole smooth, distinctly shorter than remaining part of gaster, longer than hind femur, middle part slightly thickened; gaster shorter than mesosoma.

Colour. Head and mesosoma bluish green with metallic refringence; interstices of mesosoma with slight purple reflections; antenna pale brownish yellow; coxae brown with apices paler; wings hyaline.

Length. 3.3 mm.

Female. Unknown.

Host & Biology. Unknown.

Material examined. *Holotype.* Male, INDIA: Kerala, Thrissur (10°31'N 76°13'E), Coll. T.C. Narendran, 4.xii.1988, NZC Regd. No. 10156/H3. *Paratype.* 1 Male, INDIA: Kerala, Alappuzha Dist., Kayamkulam (9°10'N 76°30'E), Coll. T.C. Narendran, 19.ii.1989, NZC Regd. No. 10202/H3. *Other materials examined.* 7 Males, INDIA: Kerala, Ernakulum (10°1'N 76°18'E), Coll. T.C. Narendran, 9.ii.1989, ZSI Regd. Nos. ZSI/WGRS/I.R-INV. 6250–6256.

Distribution. India: Kerala.

***Stilbula minispina* Heraty, 2002**

Stilbula minispina Heraty, 2002: 253-254. Holotype female, India: Tamil Nadu, Siruvani Forest (BMNH), by original designation. Description of female, illustrated.

Diagnosis. Female. Head 1.5x as broad as high; frons smooth and bare with only faint indications of vertical striae, lower face smooth; vertex smooth laterad to ocelli, weakly rugulose medially; vertex broadly rounded, occipital carina absent; eyes separated by 1.7x their height, bare; clypeus smooth; labrum with 6 digits; F2 1.4x as long as F3; mesosoma areolate-rugose and bare; mesoscutum anteriorly and side lobe smooth, side lobes broadly swollen medially; scutellum without median furrow; frenal process thin and obliquely truncate (Fig. 309 of Heraty, 2002: 327), 2.5x as long as broad; lower mesepisternum smooth; fore wing 2.7x as long as broad; petiole 4x as long as hind coxa.

Colour. Body dark brown with bluish reflections; antenna, legs and most of petiole yellowish brown; petiole with infuscate band medially; wings hyaline except for broad infuscate spot posterior to stigma, venation pale brown basally, clear apically.

Length. 2.5 mm.

Male. Unknown.

Host & Biology. Unknown.

Distribution. India: Tamil Nadu.

Remarks. No specimens were available for studies; hence the diagnosis was taken from Heraty (2002).

***Stilbula muthangensis* Girish Kumar sp. nov.**

(Figs. 6-9; Image 5)

Holotype. Male. Length 5.96 mm. Head and mesosoma dark brown with metallic black reflections; antenna brownish yellow; mandible yellowish brown; ocelli reflecting yellowish brown; eyes dark brown; coxae brown, remaining parts of legs pale brownish yellow; claws pale brown; tegula brown; wings hyaline except for small infuscate spot around STV, veins brown; petiole brownish yellow with brown band submedially; upper half of gaster black, lower half brown.

Head. 1.59x as broad as high (excluding mandibles) (Fig. 7) in frontal view; POL 1.68x OOL; median ocellus separated from occipital margin by less (0.41x) than its own diameter; frons finely carinate, carinae converging just below toruli; face with protuberances, lower face transversely carinate; vertex striate laterad to ocelli, rugose medially; eyes separated by 2.09x their height, bare; malar space 0.81x height of eye; clypeus smooth with protuberances, few faint transverse striations above clypeus; supraclypeal area not defined; labrum with 12 digits; apical tooth of mandible long and thin. Antenna (Fig. 6) 12 segmented; scape slightly longer than broad; funicle 9 segmented; F1 5.50 x as long as broad, 1.44x as long as F2; flagellomeres slightly swollen apically; scape and pedicel bare, flagellar segments pilose; MPS absent; antennal length shorter than the combined length of head, mesosoma and petiole (11: 12.8).

Mesosoma. Mesoscutum and scutellum deeply and closely punctate, interstices carinate, surface bare; notauli distinct and foveolate; SSS deeply impressed and strongly carinate; scutellum broadly rounded with median furrow, 1.77x as broad as the distance between SSS and frenal carina (including axilla) (Fig. 8); frenal line smooth and complete dorsally; frenal process pitted; each tooth of posterior scutellar process shorter than its stalk; stalk 1.21x as long as broad; propodeum (Fig. 9) completely punctate, interstices carinate without median carina, bare; callus bare; mesepisternum with a smooth area (Fig. 6); upper mesepimeron completely punctate, interstices carinate; femoral groove broad, transversely carinate, swollen anterior to mid coxa; fore coxa smooth with very small protuberances; mid coxa smooth with few faint striations, without ventral sulcus; hind coxa and all femora glabrous. Fore wing (Fig. 6) 2.90x as long as broad; STV angled to wing margin, stout, 1.60x as long as broad; PMV 2 x as long as STV; wing disc with microtrichia; hind wing with microtrichia and marginal fringes; hamuli 4 in number.

Metasoma (Fig. 6). Petiole 0.85x as long as gaster, 5.20x as long as hind coxa, 1.62x as long as hind femur, smooth and slightly swollen submedially; Gt₁ glabrous.

Female. Unknown.

Host & Biology. Unknown.

Etymology. The species is named after the collection locality.

Material examined. *Holotype*. Male, INDIA: Kerala, Wayanad Dist., Muthanga WLS (11°44' N 76°29' E), Coll. T.C. Narendran & Party, 7.v.2000, ZSI Regd. No. ZSI/WGRS/I.R-INV. 6257.

Distribution. India: Kerala.

Discussion. This new species resembles to *S. ashokai* Narendran (1996) in having: (1) Scutellar process stout; (2) Mesopleuron with a distinctly smooth area; (3) Petiole distinctly shorter than gaster; (4) Fore wing with infumation adjoining stigma; and (5) Median ocellus separated from occipital margin by less than its own diameter. However, this new species differs from *S. ashokai* in having: (1) POL 1.68x OOL (In *S. ashokai* POL 2.5x OOL); (2) Head and mesosoma dark brown with metallic black reflections (In *S. ashokai* head and mesosoma black with metallic green refringence); (3) Body length 5.96 mm (In *S. ashokai* body length 3.43 mm); and (4) Eyes separated by 2.09x their height (In *S. ashokai* eyes separated by less than 2x their height).

This new species is also similar to *S. bullista* Girish Kumar sp. nov. in having: (1) Scutellar process stout; (2) Head and mesosoma dark brown with metallic black reflections; (3) Antenna brownish yellow; (4) Fore wing with infumation adjoining stigma; (5) Median ocellus separated from occipital margin by less than its own diameter; and (6) Mesopleuron with a smooth area. However, this new

species differs from *S. bullista* sp. nov. in having: (1) Stalk of scutellar process (excluding teeth) 1.21x as long as broad (In *S. bullista* sp. nov. scutellar process (excluding teeth) 0.86x as long as broad); (2) STV angled to wing margin and stout (In *S. bullista* sp. nov. STV perpendicular to wing margin and finger-like); (3) Gastral petiole 1.62x as long as hind femur (In *S. bullista* sp. nov. gastral petiole 1.42x as long as hind femur); (4) F1 1.44x as long as F2 (In *S. bullista* sp. nov. F1 1.27x as long as F2); (5) Body length 5.96 mm (In *S. bullista* sp. nov. body length 4.47 mm); and (6) Hamuli 4 in number (In *S. bullista* sp. nov. hamuli 3 in number).

***Stilbula mysorensis* (Mani & Dubey, 1974)**

Schizaspidia mysorensis Mani & Dubey in Mani et al, 1974: 37. Holotype female, India: Mysore (USNM), by original designation. Description of female, illustrated.

Stilbula mysorensis; Hedqvist, 1978: 247. Change of combination.

Diagnosis. Female. Labrum with 11 digits; gena with obliquely longitudinal striae (Fig. 21E of Mani et al., 1974: 38); head frontal view as in Fig. 21D of Mani et al. (1974: 38) and head dorsal view as in Fig. 21C of Mani et al. (1974: 38); antenna (Fig. 21B of Mani et al., 1974: 38) with scape 1.7x as long as broad; F1 4x as long as broad; F2 0.6x as long as F1; scutellum (Fig. 21F of Mani et al., 1974: 38) with a median longitudinal sulcus; propodeum without median carina; scutellar process bluntly and shortly bifurcate; scutellar process about 0.27x as long as scutellum; Fore wing (Fig. 21A of Mani et al., 1974: 38) with SMV: MV: PMV = 125: 100: 25; petiole (Fig. 21H of Mani et al., 1974: 38) smooth, slender, cylindrical, almost equal to gaster and equal to mesosoma.

Colour. Body black with metallic coppery reflections; head black; antenna dark brown; mandible brown; fore wing hyaline with a brown stigmal cloud; veins dark brown; coxae concolorous with mesosoma, rest of legs brown; petiole yellowish brown with a black band submedially; gaster brown except Gt₁ black.

Length. 3 mm.

Male. Unknown.

Host & Biology. Unknown.

Distribution. India: Karnataka: Mysore.

Remarks. No specimens were available for studies; hence the diagnosis was taken from Mani et al. (1974) and Mani (1989).

***Stilbula namida* Girish Kumar sp. nov.**

(Figs. 10-13; Image 6)

Holotype. Male. Length 4.77 mm. Head and mesosoma dark brown with metallic black reflections; antenna and mandibles pale brownish yellow; median ocellus reflecting brownish yellow, lateral ocelli reflecting red; eyes reddish brown; coxae dark brown with apices near to trochanter yellowish brown, remaining parts of legs pale brownish yellow, claws brown; tegula yellowish brown; wings hyaline, veins pale brown; petiole yellow with pale brown band submedially; upper half of gaster brown, lower half yellowish brown.

Head. 1.69 x as broad as high (excluding mandibles) (Fig. 12) in frontal view; POL 2.42 x OOL; median ocellus separated from occipital margin by less (0.5x) than its own diameter; frons finely carinate, carinae converging below toruli; lower face transversely carinate; vertex striate laterad to ocelli, slightly rugose medially; eyes separated by 1.90x their height, bare; malar space 0.87x height of eye; clypeus smooth on upper half, faint transverse striations on lower half; supraclypeal area not well defined, transversely striated on upper half, smooth on lower half; labrum with 9 digits; apical tooth of mandible long and thin. Antenna

(Fig. 11) 12 segmented; scape as long as broad; funicle 9 segmented; F1 4.36x as long as broad, 1.26x as long as F2; flagellomeres slightly swollen apically; scape and pedicel bare; flagellar segments pilose; MPS absent; antennal length longer than combined length of head, mesosoma and petiole (12.4: 11.7).

Mesosoma. Mesoscutum and scutellum deeply and closely punctate, interstices carinate, surface bare; notauli distinct and foveolate; SSS deeply impressed, strongly carinate; scutellum broadly rounded with median furrow, 1.44x as broad as distance between SSS and frenal carina (including axilla) (Fig. 13); frenal line smooth and complete dorsally; frenal process stout, pitted; each tooth of posterior scutellar process shorter than its stalk; stalk 0.86x as long as wide; propodeum completely punctate, interstices carinate, without a median carina, bare; callus bare; mesepisternum with a smooth area (Fig. 10); upper mesepimeron punctate, interstices carinate; femoral groove broad and transversely carinate, swollen anterior to mid coxa. Fore and mid coxae striate basally; mid coxa without ventral sulcus, hind coxa and all femora glabrous. Fore wing (Fig. 10) 3.55 x as long as broad; STV 1.40x as long as broad; PMV 1.14x as long as STV; wing disc with microtrichia except at basal area bare; hind wing with microtrichia and marginal fringes; hamuli 3 in number.

Metasoma (Fig. 10). Petiole 0.83x as long as gaster, 3.87x as long as hind coxa, 1.40x as long as hind femur, smooth and swollen submedially; Gt₁ glabrous.

Female. Unknown.

Host & Biology. Unknown.

Etymology. The species name is an arbitrary combination of letters.

Material examined. *Holotype:* Male, INDIA: Kerala, Kozhikode Dist., Nanminda (11°26' N 75° 50'E), Coll. P. Girish Kumar, 8.iv.2001, ZSI Regd. No. ZSI/WGRS/I.R-INV. 6258.

Distribution. India: Kerala.

Discussion. This new species resembles to *S. ashokai* Narendran (1996) in having: (1) Mesopleuron with a distinct smooth area on anterior half; (2) Posterior process of scutellum stouter; (3) Median ocellus separated from occipital margin by less than its own diameter; and (4) Petiole distinctly shorter than remaining part of gaster. However, this new species differs from *S. ashokai* in having: (1) Fore wing without a brown infumation adjoining stigma (In *S. ashokai* fore wing with a brown infumation adjoining stigma); (2) Head and mesosoma dark brown with metallic black reflections (In *S. ashokai* head and mesosoma black with metallic green reflections); (3) Mouth plate 9 digitate (In *S. ashokai* mouth plate 12 digitate); (4) Fore wing 3.55x as long as its maximum width (In *S. ashokai* fore wing 2.83x as long as its maximum width); and (5) Hamuli 3 in number (In *S. ashokai* hamuli 4 in number).

This new species is also close to *S. bangalorica* Girish Kumar & Narendran (2008) in having: (1) Fore wing without brown infumation adjoining stigma; (2) Mesopleuron with a distinct smooth area on anterior half; and (3) Posterior process of scutellum stouter. However, this new species differs from *S. bangalorica* sp. nov. in having: (1) POL 2.42x OOL (In *S. bangalorica* POL 2.80x OOL); (2) Head and mesosoma dark brown with metallic black reflections (In *S. bangalorica* head and mesosoma black with metallic green reflections); (3) Base of coxa dark brown without metallic green reflections (In *S. bangalorica* base of coxa brown with metallic green reflections); (4) Body length 4.77 mm (In *S. bangalorica* body length 6.28 mm); (5) Stalk of scutellar process 0.86x as long as broad (In *S. bangalorica* stalk of scutellar process as long as broad); (6) Mouth plate 9 digitate (In *S. bangalorica* mouth plate 8 digitate); and (7) Hamuli 3 in number (In *S. bangalorica* hamuli 7 in number).

***Stilbula nilgiri* Heraty, 2002**

Stilbula nilgiri Heraty, 2002: 254-255. Holotype male, India: Nilgiri Hills (CNCI), by original designation. Description of male, illustrated.

Diagnosis. Male. Head 1.6x as broad as high; frons finely carinate, carinae covering below toruli; lower face transversely carinate; vertex broadly rounded, occipital carina absent; eyes separated by 2.3x their height, bare; clypeus smooth basally, transversely striate apically; labrum with 9 digits; antenna (Fig. 321 of Heraty, 2001: 327) with F2 2.4x as long as broad, 1.5x as long as F3; F-F6 swollen subapically; scutellum without median furrow; frenal process (Fig. 310 of Heraty, 2001: 327) upturned, smooth, about as long as broad and cleft medially; lower mesepisternum smooth to transversely carinate; fore wing (Fig. 322 of Heraty, 2001: 327) 2.6x as long as broad; petiole 3.3x as long as broad and 5.6x as long as hind coxa, smooth and swollen medially.

Colour. Head black with green reflections; mesosoma mostly black with bluish green reflections, lower half of mesoscutum and upper corners of prepectus, acropleuron and propodeum yellow; apical half of coxae, remainder of legs and petiole yellow; basal half of coxae and gaster dark brown; wings hyaline except for some infuscate spot around stigmal vein, veins pale brown.

Length. 5.2 mm.

Female. Unknown.

Host & Biology. Unknown.

Distribution. India: Tamil Nadu: Nilgiri Hills.

Remarks. No specimens were available for studies; hence the diagnosis was taken from Heraty (2002).

***Stilbula shendurunica* Girish Kumar sp. nov.**

(Figs. 14-18; Images 7 & 8)

Holotype. Female. Length 4.78 mm. Head and mesosoma dark with metallic green reflections; antenna dark brown except scape and pedicel brownish yellow; mandibles yellow, margins with brown reflections; ocelli reflecting black; eye reflecting reddish brown; legs pale yellow except coxae brown, claws dark; hind coxa with metallic reflections; tegulae brownish yellow; fore wing with a narrow brown infumation adjoining stigma; veins brown; petiole completely pale yellow without dark band medially; gaster dark brown.

Head. 1.55x as broad as high (excluding mandibles) (Fig. 15) in frontal view; POL 1.44 x OOL; median ocellus separated from occipital margin by about half of its own diameter; frons weakly striated, some striations converging well below toruli more or less in a circular manner; lower face weakly, transversely striated; vertex with few strong striations; eyes separated by 2.10x their height, bare; gena obliquely striate; malar space as long as height of eye; tentorial pit and clypeogenal sulci distinct and deep; clypeus almost entirely smooth, without strong transverse striations, with an incomplete one striation at apex; supraclypeal area not well defined, smooth; labrum with 12 digits; apical tooth of mandible long and thin. Antenna (Fig. 14) 12 segmented; scape 1.50x as long as broad; funicle 9 segmented; F1 3.83x as long as broad, 1.77x as long as F2; scape and pedicel bare; flagellar segments pilose, pilosity well pronounced; MPS numerous, large and exposed; clava ventrally depressed; antenna 1.21x as long as head and mesosoma combined.

Mesosoma. Mesoscutum and scutellum closely punctate, interstices carinate, surface bare; notauli distinct, foveolate; mesoscutum without median fovea; SSS deeply impressed, strongly carinate; scutellum (excluding axilla) 0.96x wider than median distance between SSS and frenal groove at base of scutellar process (Fig.

17), with a weak median furrow; frenal process stout and pitted; scutellar process distinctly shorter (0.35x) than the median length of scutellum; scutellar teeth about half of the scutellar process; propodeum completely punctate, interstices carinate, without a median carina; callus bare; mesepimeron (Fig. 16) with a large smooth area at middle; upper mesepimeron completely punctate, interstices carinate; femoral groove broad and transversely carinate, swollen anterior to mid coxa. Fore coxa slightly striated basally; mid coxa striated ventro-laterally; hind coxa and all femora glabrous; all tibiae and tarsi with setae. Fore wing (Fig. 18) 2.61 x as long as broad; wing disc with microtrichia except at basal area bare; STV and PMV not clear; hind wing with microtrichia and marginal fringes; hamuli 4 in number.

Metasoma. Petiole 0.43x as long as gaster (Image 8), 2.63x as long as hind coxa, shorter (0.78x) than hind femur, smooth and swollen sub medially; gaster 1.22x as long as head and mesosoma combined, elongate-oval and smooth; ovipositor not visible externally.

Male. Unknown.

Host & Biology. Unknown.

Etymology. The species name is named after the collection locality.

Material Examined. *Holotype:* Female. INDIA: Kerala, Kollam Dist., Shenduruni WLS (8°51'N 77°13'E), Pandimotta, Coll. K. Rajmohana & Party, 17.xii.2015, ZSIK Regd. No. ZSI/WGRS/I.R-INV.6259.

Distribution. India: Kerala: Shenduruni Wildlife Sanctuary: Pandimotta.

Discussion. This new species closely resembles to *S. silentvalliensis* Girish Kumar sp. nov. in having petiole completely pale yellow without dark band medially. However, this new species distinctly differs from *S. silentvalliensis* in the following features: (1) Frons weakly striated, some striations converging well below toruli more or less in a circular manner (In *S. silentvalliensis* frons completely striated more or less in a circular manner, converging well below toruli); (2) Clypeus almost entirely smooth, without strong transverse striations, with an incomplete one striation at apex; (In *S. silentvalliensis* clypeus smooth with strong transverse striations on apical half); (3) Fore wing with a narrow brown infumation adjoining stigma (In *S. silentvalliensis* fore wing with dark brown infumation adjoining stigma and pale brown infumation extends to the remaining portion after stigma); (4) Gaster 1.22x as long as head and mesosoma combined (In *S. silentvalliensis* gaster about as long as head and mesosoma combined); (5) Labrum with 12 digits (In *S. silentvalliensis* labrum with 14 digits); (6) Clava ventrally depressed (In *S. silentvalliensis* clava ventrally not depressed); and (7) Gaster entirely dark brown (In *S. silentvalliensis* upper half of gaster dark brown, lower half yellowish brown).

***Stilbula silentvalliensis* Girish Kumar sp. nov.**

(Figs. 19-23; Images 9 & 10)

Holotype. Female. Length 6.40 mm. Head metallic green; mesosoma brown with metallic green reflections; antenna yellowish brown with scape, pedicel, base of first funicular segment, last funicular segment and club paler; mandibles yellow, apical margins with brown reflections; ocelli reflecting whitish yellow; eye reflecting reddish brown; legs pale yellow except coxae brown, claws dark; tegulae pale yellow; fore wing with dark brown infumation adjoining stigma and pale brown infumation extends to the remaining portion after stigma of the wing; fore wing veins dark brown; hind wing vein pale brown; petiole completely pale yellow without dark band medially; upper half of gaster dark brown, lower half yellowish brown.

Head. 1.61x as broad as high (excluding mandibles) (Fig. 20) in frontal view; POL 1.63 x OOL; median ocellus separated from occipital margin by about half of its own diameter; frons completely striated more or less in a circular manner, converging well below toruli; lower face transversely carinate; vertex with few strong striations; eyes separated by 2.22x their height, bare; gena obliquely striate; malar space 0.92x height of eye; tentorial pit and clypeogenal sulci distinct and deep; clypeus smooth with strong transverse striations on apical apical half; supraclypeal area not well defined, smooth; labrum with 14 digits; apical tooth of mandible long and thin. Antenna (Fig. 19) 12 segmented; scape 1.43x as long as broad; funicle 9 segmented; F1 3.33x as long as broad, 1.58x as long as F2; scape and pedicel bare; flagellar segments pilose, pilosity well pronounced; MPS numerous, large and exposed; clava ventrally not depressed; antenna as long as head and mesosoma combined.

Mesosoma. Mesoscutum and scutellum closely punctate, interstices carinate, surface bare; notauli distinct, foveolate; mesoscutum with a weak median fovea; SSS deeply impressed, strongly carinate; scutellum (excluding axilla) 0.89x wider than median distance between SSS and frenal groove at base of scutellar process (Fig. 22) with a median furrow; frenal process stout and pitted; scutellar process distinctly shorter (0.28x) than the median length of scutellum; scutellar teeth about half of the scutellar process; propodeum completely punctate, interstices carinate, without a median carina; callus bare; mesepimeron (Fig. 21) with a large smooth area at middle; upper mesepimeron completely punctate, interstices carinate; femoral groove broad and transversely carinate, swollen anterior to mid coxa. Fore coxa slightly striated basally; mid coxa striated ventro-laterally; hind coxa and all femora glabrous; all tibiae and tarsi with setae. Fore wing (Fig. 23) 2.63 x as long as broad; wing disc with microtrichia except at basal area bare; hind wing with microtrichia and marginal fringes; hamuli 4-5 (4 in one hind wing; 5 in other hind wing) in number.

Metasoma. Petiole 0.43x as long as gaster (Image 10), 3x as long as hind coxa, slightly shorter (0.91x) than hind femur, smooth and swollen sub medially; gaster about as long as head and mesosoma combined, sub oval and smooth; ovipositor exerted and acicular.

Male. Unknown.

Host & Biology. Unknown.

Etymology. The species name is named after the collection locality.

Material Examined. *Holotype:* Female. INDIA: Kerala, Palakkad Dist., Silent Valley (11°04'N 76°31'E), Havlok, Coll. P. M. Sureshan & Party, 23.ii.2013, ZSIK Regd. No. ZSI/WGRS/I.R-INV.6260.

Distribution. India: Kerala: Silent Valley.

Discussion. This new species closely resembles to *S. atkinsoni* (Mani & Dubey, 1974) in having: (1) Frons completely striated more or less in a circular manner; and (2) Petiole without a distinct ring or band. However, this new species distinctly differs from *S. atkinsoni* in the following features: (1) Petiole pale yellow (In *S. atkinsoni* petiole brownish black to very dark brown); (2) Scutellar teeth about half (0.5x) of scutellar process (In *S. atkinsoni* scutellar teeth about 0.30x scutellar process); (3) Scutellar process distinctly shorter (0.28x) than scutellum (In *S. atkinsoni* scutellar process subequal to scutellum); (4) F1 3.33x as long as broad (In *S. atkinsoni* F1 7x as long as broad); and (5) Head metallic green (In *S. atkinsoni* head nearly black with blue reflections).

This new species also closely resembles to *S. shendurunica* Girish Kumar sp. nov. in having petiole completely pale yellow without dark band medially. However, this new species distinctly differs from *S. shendurunica* in the following

features: (1) Frons completely striated more or less in a circular manner, converging well below toruli (In *S. shendurunica* frons weakly striated, some striations converging well below toruli more or less in a circular manner); (2) Clypeus smooth with strong transverse striations on apical half (In *S. shendurunica* clypeus almost entirely smooth, without strong transverse striations, with an incomplete one striation at apex); (3) Fore wing with dark brown infumation adjoining stigma and pale brown infumation extends to the remaining portion after stigma (In *S. shendurunica* fore wing with a narrow brown infumation adjoining stigma); (4) Gaster about as long as head and mesosoma combined (In *S. shendurunica* gaster 1.22x as long as head and mesosoma combined); (5) Labrum with 14 digits (In *S. shendurunica* labrum with 12 digits); (6) Clava ventrally not depressed (In *S. shendurunica* clava ventrally depressed); and (7) Gaster upper half of gaster dark brown, lower half yellowish brown (In *S. shendurunica* entirely dark brown).

***Stilbula tanjorensis* (Mani & Dubey, 1974)**

(Figs. 24-27; Images 11 & 12)

Stilbula tanjorensis Mani & Dubey in Mani et al, 1974: 39-41. Holotype female India: Tanjore (USNM), by original designation. Description of both sexes illustrated.

Stilbula tanjorensis; Hedqvist, 1978: 247. Change of combination.

Redescription. Plesiotype Female. Length 4.70 mm. Head and mesosoma blackish brown with metallic green reflections; antenna dark brown; mandibles brownish yellow; ocelli reflecting reddish brown; eyes reddish brown; coxae brown, remaining parts of legs pale brownish yellow; claws and tegulae brown; wings hyaline with brown infumation adjoining STV, veins brown; petiole pale brownish yellow with brown band medially; gaster dark brown with upper half of Gt_1 black.

Head. 1.40x as broad as high (excluding mandibles) (Fig. 26) in frontal view; POL 2.50 x OOL; median ocellus separated from occipital margin by less (0.87 x) than its own diameter; frons finely carinate, carinae reaches up to the level of toruli; face with minute protuberances; lower face transversely carinate; vertex striate-rugose; eyes separated by 1.64x their height, bare; malar space 0.64x height of eye; clypeus smooth with minute protuberances, supraclypeal area not defined, lower half smooth; labrum with 7 digits; apical tooth of mandible long and thin. Antenna (Fig. 25) 12 segmented; scape longer than broad; funicle 9 segmented; F1 3x as long as broad, 1.2x as long as F2; flagellomeres not swollen apically; scape and pedicel bare; flagellar segments pilose; MPS absent; antenna distinctly shorter than combined length of head, mesosoma and petiole (6.3 : 9.6).

Mesosoma. Mesoscutum and scutellum closely punctate, interstices carinate, surface bare; notauli distinct and foveolate; SSS deeply impressed, strongly carinate; scutellum broadly rounded with a slight median furrow; frenal line smooth and complete dorsally; frenal process (Fig. 27) slender and pitted; propodeum completely punctate, interstices carinate, without a median carina; callus bare; mesepisternum with a smooth area (Fig. 24); upper mesepimeron completely punctate, interstices carinate; femoral groove broad, transversely carinate, swollen anterior to mid coxa. Fore coxa weakly striated anteriorly; mid coxa weakly rugose dorsally and ventrally, smooth laterally, with ventral sulcus; hind coxa and all femora glabrous; tibiae smooth and bare except at apices near to tarsi with weak setae; tarsi setose. Fore wing (Fig. 24) 2.84x as long as broad; STV 2.25x as long as broad; PMV 2x as long as STV; wing disc with microtrichia except at basal third bare; hind wing with microtrichia and marginal fringes; hamuli 3 in number.

Metasoma (Fig. 24). Petiole 0.49x as long as gaster, 3.2x as long as hind coxa, as long as hind femur, smooth, slightly swollen medially; Gt₁ glabrous.

Male. Length 4.31 mm; petiole with a band submedially; antenna dark brownish yellow; POL 2.16 x OOL (Fig. 3 of Girish Kumar & Narendran, 2007: 2869); median ocellus separated from occipital margin by less (0.57x) than its own diameter; carinae reaches below level of toruli (Fig. 4 of Girish Kumar & Narendran, 2007: 2869); vertex striate laterad to ocelli, rugose in between ocellus, broadly rounded; eyes separated by 1.88 x their height; malar space 0.73 x height of eye; F₁ 4.16x as long as broad (Fig. 2 of Girish Kumar & Narendran, 2007: 2869); 1.47x as long as F₂; flagellomeres slightly swollen apically; antenna longer than the combined length of head, mesosoma and petiole (13.80: 10.45). Antenna (Fig. 1 of Girish Kumar & Narendran, 2007: 2869) with STV 2.1x as long as broad; PMV 1.33x as long as STV; petiole 0.82x as long as gaster, 5.11 x as long as hind coxa, 1.58 x as long as hind femur, smooth, swollen submedially. Other characters almost as in female.

Host & Biology. Unknown.

Material examined. *Plesiotype:* Female, INDIA: Tamil Nadu; Coimbatore (11°0' N 76°58' E), Coll. T.C. Narendran & Party, September 1987, ZSI Regd. No. ZSI/WGRS/I.R-INV. 6261. *Other material examined:* 3 Males, same data of plesiotype, ZSI/WGRS/I.R-INV. 6262–6264; 1 female & 4 Males, INDIA: Kerala, Pathanamthitta Dist., Gavi (9°26' N 77° 09' E; alt. 1184 m.), Coll. P.M. Sureshan & Party, 10.iv.2013, ZSI/WGRS/I.R-INV. 6265–6268; 1 Male, INDIA: Kerala; Idukki Dist., Marayoor (10°16' N 77°09' E; alt. 995m.), Coll. P.M. Sureshan & Party, 4.ix.2013, ZSI/WGRS/I.R-INV. 6269; 13 Males, INDIA: Kerala, Kozhikode Dist., East Hill (11° 17' N 75° 46' E; alt. 32 m.), Coll. P.M. Sureshan & Party, 30.iii.–22.iv.2015, ZSI/WGRS/I.R-INV. 6270–6282.

Distribution. India: Kerala, Tamil Nadu.

Checklist of Oriental species of the genus *Stilbula* Spinola, 1811

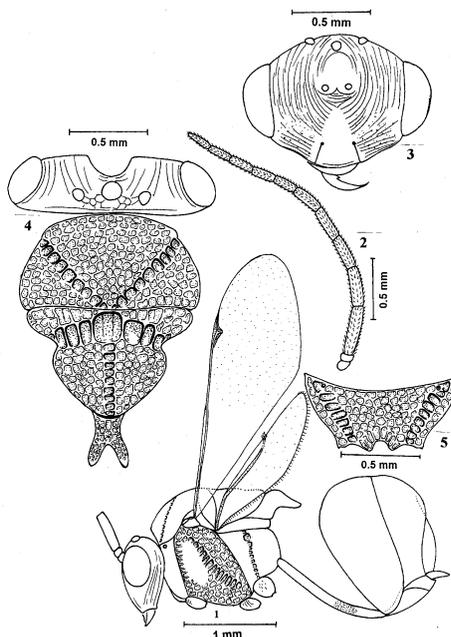
- (1) *S. ashokai* Narendran, 1996 — India: Kerala, Tamil Nadu.
- (2) *S. atkinsoni* (Mani & Dubey, 1974) — Myanmar.
- (3) *S. bangalorica* Girish Kumar & Narendran, 2008 — India: Karnataka.
- (4) *S. bullista* Girish Kumar **sp. nov.** — India: Kerala.
- (5) *S. indica* (Mani, 1935) — India: Assam.
- (6) *S. insularis* Cameron, 1908 — Chagos Archipelago.
- (7) *S. knuthii* Alfken, 1900 — Indonesia: Java.
- (8) *S. lata* Narendran, 1996 — India: Kerala, Tamil Nadu.
- (9) *S. leucopoda* (Cameron, 1909) — Malaysia: Sarawak.
- (10) *S. minispina* Heraty, 2002 — India: Tamil Nadu.
- (11) *S. muthangensis* Girish Kumar **sp. nov.** — India: Kerala.
- (12) *S. mysorensis* (Mani & Dubey, 1974) — India: Karnataka.
- (13) *S. namida* Girish Kumar **sp. nov.** — India: Kerala.
- (14) *S. nilgiri* Heraty, 2002 — India: Tamil Nadu.
- (15) *S. palawanensis* Hedqvist, 1978 — Philippines.
- (16) *S. peethavarna* Narendran, 1996 — Thailand; Taiwan (Noyes, 2015, opined that the record from Taiwan requires conformation).
- (17) *S. polyrhachicida* (Wheeler & Wheeler, 1924) — Philippines; Taiwan.
- (18) *S. shendurunica* Girish Kumar **sp. nov.** — India: Kerala.
- (19) *S. silentvalliensis* Girish Kumar **sp. nov.** — India: Kerala.
- (20) *S. tanjorensis* (Mani & Dubey, 1974) — India: Kerala, Pondicherry, Tamil Nadu.
- (21) *S. trimaculata* (Cameron, 1909) — Malaysia: Sarawak; Philippines.

ACKNOWLEDGEMENTS

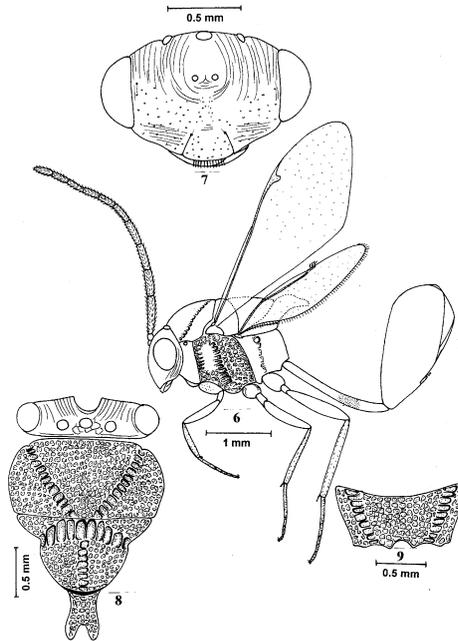
The author is grateful to Dr. Kailash Chandra, Director, Zoological Survey of India Kolkata and Dr. P. M. Sureshan, Scientist-D & Officer-in-Charge, Western Ghats Regional Centre, Zoological Survey of India, Kozhikode for providing facilities and encouragements.

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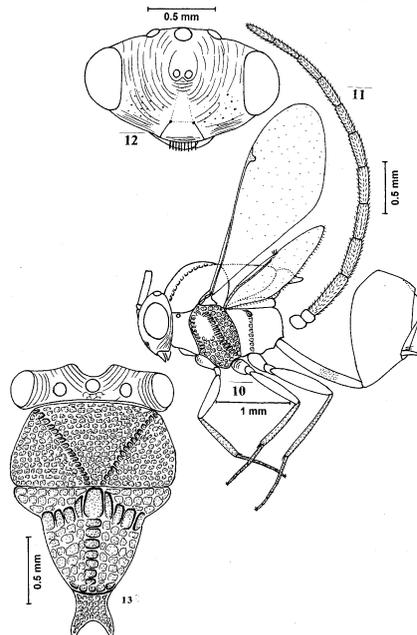
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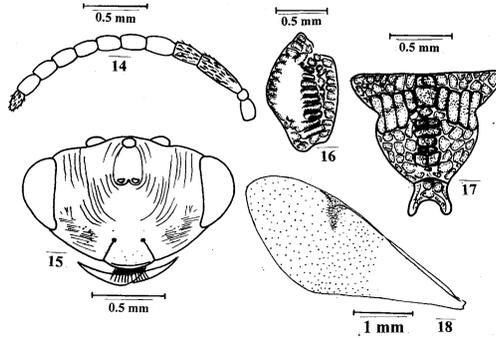
Figures 1-5. *Stilbula bullista* Girish Kumar sp. nov. Holotype Male. 1. Body profile, 2. Antenna, 3. Head frontal view, 4. Head and mesosoma dorsal view, 5. Propodeum.



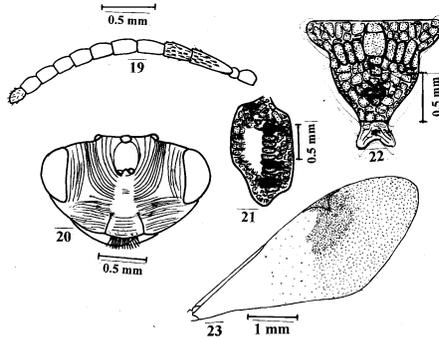
Figures 6-9. *Stilbula muthangensis* Girish Kumar sp. nov. Holotype Male. 6. Body profile, 7. Head frontal view, 8. Head and mesosoma dorsal view, 9. Propodeum.



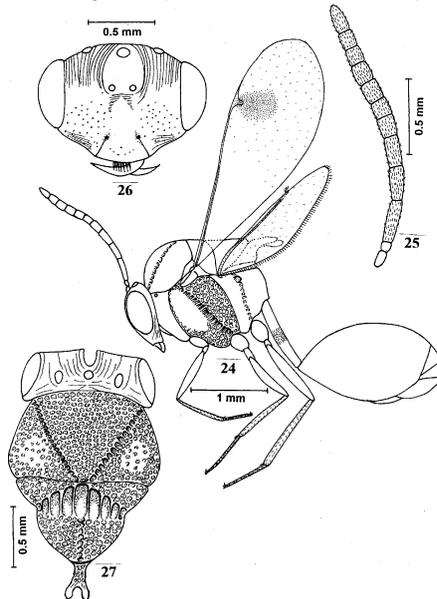
Figures 10-13. *Stilbula namida* Girish Kumar sp. nov. Holotype Male. 10. Body profile, 11. Antenna, 12. Head frontal view, 13. Head and mesosoma dorsal view.



Figures 14-18. *Stilbula shendurnica* Girish Kumar sp. nov. Holotype Female. 14. Antenna, 15. Head frontal view, 16. Mesopleuron, 17. Scutellum dorsal view, 18. Forewing.



Figures 19-23. *Stilbula silentvalliensis* Girish Kumar sp. nov. Holotype Female. 19. Antenna, 20. Head frontal view, 21. Mesopleuron, 22. Scutellum dorsal view, 23. Forewing.



Figures 24-27. *Stilbula tanjorensis* (Mani & Dubey) Female. 24. Body profile, 25. Antenna, 26. Head frontal view, 27. Head and mesosoma dorsal view.

Plate 1



Image 1. *Stilbula ashokai* Narendran Male profile



Image 2. *Stilbula bangalorica* Girish Kumar & Narendran Holotype Male profile



Image 3. *Stilbula bullista* Girish Kumar sp. nov. Holotype Male profile



Image 4. *Stilbula lata* Narendran Male profile



Image 5. *Stilbula muthangensis* Girish Kumar sp. nov. Holotype Male profile



Image 6. *Stilbula namida* Girish Kumar sp. nov. Holotype Male profile

Plate II



Image 7. *Stilbula shendurunica* Girish Kumar sp. nov.
Holotype Female profile



Image 8. *Stilbula shendurunica* Girish Kumar sp. nov.
Holotype Female Metasoma



Image 9. *Stilbula silentvalliensis* Girish Kumar sp. nov.
Holotype Female profile



Image 10. *Stilbula silentvalliensis* Girish Kumar sp. nov.
Holotype Female Metasoma



Image 11. *Stilbula tanjorensis* (Mani & Dubey) Female
profile



Image 12. *Stilbula tanjorensis* (Mani & Dubey) Male
profile