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Xylocopa Udhagamandalami Sp. Nov: A New Hymenoptera Species of Anthophorine Bees from India

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Abstract:
Xylocopa udhagamandalami sp. nov. is being described from southern India. This species resembles with *Xylocopa chinensis* but can be distinguished by first submarginal cross vein, post lateral pronotal lobe and pubescence integument. Erection of new species is based on male specimen.

Keywords: Xylocopa, Carpenter bee, Anthophotriene bee, Hymenoptera

Description

Male: Body of medium size, somewhat robust; thickly pubescent; densely punctate; integument mainly black except some pale marking on head; wings lone and light yellow.

Head: *Face* broad; densely punctate beneath the dense yellow pubescent. *Vertex* above the level of the eyes; area between lateral ocelli and anterior orbits with somewhat rounded yellow markings. *Eyes* small; slightly more convergent below than above. *Ocelli* enlarged, glabrous; anterior ocellus nearly equal to antennal sockets; inter-ocellar distance nearly equal to ocellorbital distance and interalveolar distance. *Antennal Sockets* in midway between anterior ocellus and clypeus. *Antenna* scape laterally compressed; first flagellar segment shorter than the combined length of succeeding three segments. *Paraocular area* with paraocular carina present; densely punctate; *Supraclypeus area* yellow, medially convex; shallow punctate; frontal carina moderately elevated with a longitudinal sulcus in middle; lateral sides with two dark yellow spots just below the anterior ocellus; apex nearer to clypeus than anterior ocellus; *Clypeus* yellow, with two lateral quadrate black spots; flat, shallowly punctate with mediolongitudinal non punctate band. *Subantennal suture* short, upper and mesal; concavely incurve towards supraclypeus area. *Epistomal Suture* with lateral lines clearly evident; lateral lines with small tentorial pits and strongly incurved below them towards the paraocular area. *Malar area* short. *Mandible* bidentate, basally with a dark yellow spot; outer tooth more prominent and apically pointed.

Thorax: much broader than head; densely punctate except narrow median disc and covered with light yellow dense hairs; parapsidal suture short. *Scutellum* mesonotum, scutellum and metanotum exposed at the same plain; medially non punctate; propodium horizontally exposed. *Tegulae* dark brown, glabrous and covered with light yellow hairs. Fore wings with three submarginal cells. *Legs* basitibial plate present; legs dark brown; fore and hind femur dorsoventrally compressed and at the base armed with sharp spine

like process; fore femur ventrally smooth; middle femur laterally compressed; tibiae covered with yellow long hairs; tarsi covered with comb of long yellow hairs.

Abdomen: Covered with small yellow hairs; densely punctate; VI and VII tergal plate apically covered with dark brown long hairs; last tergal plate basally smooth; metasoma ventrally with mediolongitudinanon unpunctate band; each sternal plate apically pointed in middle; last sternal plate with mediolongitudinal elevated carina.

Genitalia: *Gonobase* small, and bowl like, with well developed gonocoxite, gonocoxite broad and elongated. *Gonostylus* broad and short; apically deeply bifurcated into two spatulate hooks; inner hook longer than outer; outer hook with very few setae. *Penis valves* well developed, apices, without setae, not projecting beyond the penis. Penis small, narrow with pointed apex.

Measurements: *Holotype,* body length 24 mm; length of head 5.7 mm; breadth of head 8 mm; breadth of thorax (including tegulae) 12.5 mm (excluding tegulae) 9.5 mm; length of abdomen 13 mm. *Paratype* the length of body 23.5 mm; length od head 5 mm; breadth of head 7 mm; breadth of thorax (inclu. tegulae) 12 mm (exclu, tegulae) 8 mm; length of abdomen 12 mm.

Holotype male, India, Karnataka, Udhagamandalam, 22-IV, 1980. Coll. H.B. Sharma; Paratype 5 male, same as holotype. Coll. H.B. Sharma.

Taxonomic Remark: The new species is being described from the *Xylocopa* collection made by former Prof. & Head, H.B. Sharma, Zoology Dept., B.S.A. College, Mathura, U.P., India. This species closely resembles with the *Xylocopa chinensis* Fries, but it differs from it being larger in size; area between lateral ocelli with rounded yellow marking; clypeus with mediolongitudinal impunctate band; VI and VII tergal plates apically covered with dark brown long hairs; last tergal plate basally smooth; gonostylus broad and short, apically deeply bifurcated into two spatulate like hooks; penis, small with pointed apex.

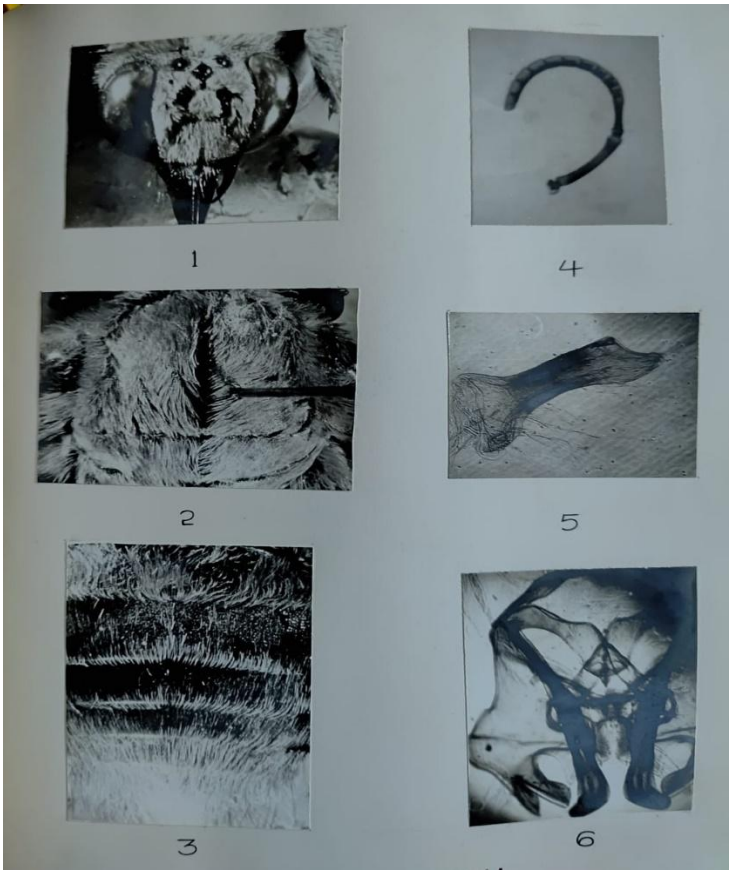

Figure: 1. Head 2. Thorax 3. Abdomen 4. Antenna 5. Mandible 6. Genitalia

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