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A New Species of Genus *Megachile* LATR. from Ludhiana, India (Insecta, Hymenoptera, Apoidea: Megachilidae)

With 3 Figures

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Abstract. *Megachile peniculata* sp. n. collected from Ludhiana, India, has been observed distinctly different from rest of the species of genus *Megachile*. Its cutting edge in between the interspace of 3rd and 4th tooth of mandible travel through both profile, i. e. it arises from lower mandibular surface at 3rd tooth and reaches upto upper mandibular surface of 4th tooth (inner angle). This species has some close affinities with the *Megachile vigilans* SMITH.

Megachile peniculata sp. n.

Female

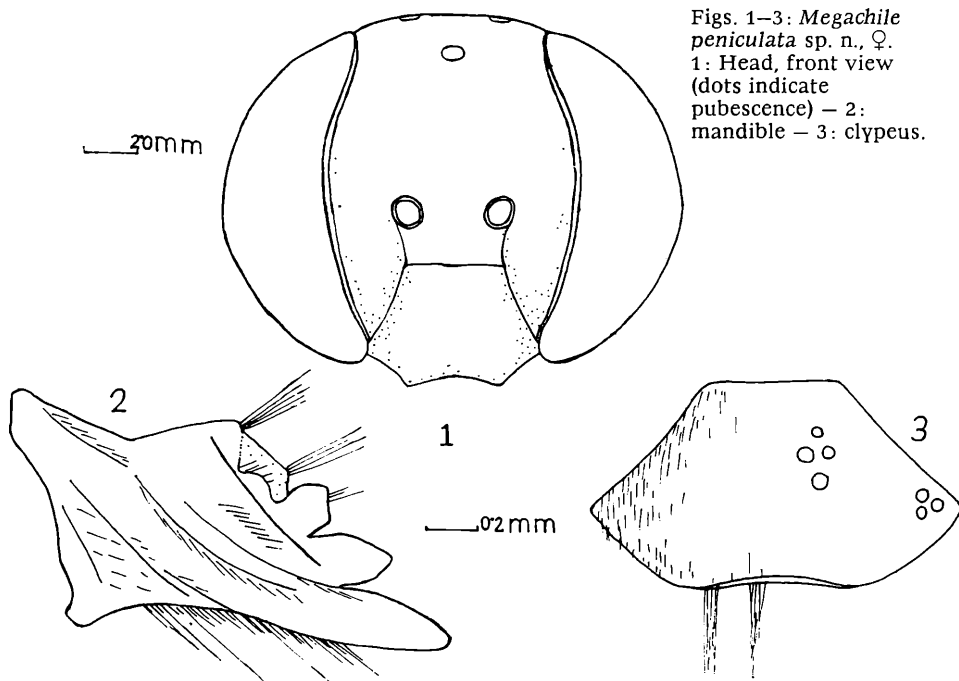
Integument black shining, punctures coarse, deep and scattered, pubescence snowy white but on face, legs, ventral side of mesosoma golden, plumose; tergal and sternal fasceae white and scopa golden yellow.

Median length of head is lesser than its maximum width; clypeus slightly convex with few coarse deep punctures, apical margin angulate; paraocular area flat; mid-facial groove absent; vertex margin deeply incurved; genal width is equal to the eye width in lateral view, narrowed above; hypostome red with black bristles; mandible tetradentate and robust, cutting edge in between very wide interspace of 3rd and 4th tooth (inner angle), cutting edge arise from below the 3rd tooth and reaches upto upper profile of inner angle. Scutum broadly convex, medially with few black bristles; scutellum subdivided into two lateral halves by a mediolongitudinal line; both recurrent veins are exactly equidistant from the base and apex of second cuboital cell of fore wing, veins picious black; anterior margin of tegulae horizontally excavated, brownish red; tarsal claws of legs without any basal bristles or pulvelli in between; mid-pair: metatarsi quite broad and apical angles of tarsi 2-4 are much produced; fore and hind pairs of legs are normal and unmodified.

First tergal concavity margin carinate; all terga with distinct white fasceae and fine discal pubescence except on 5th, where bristle colour becomes black; apical margins deeply incurved and fasciate with ferruginous hairs; tergum 6th with a mediolongitudinal carinate ridge running from base to rounded apex, apex infasciate; basal sternite much expanded, apical margin declivous medially with short white fringe; graduli of sterna 2nd to 5th are complete, margins subcarinate and with white fasceae; 6th sternal apical margin narrowly rounded with black fringe.

Measurements (in mm) Total length 15.1; eye: length 2.9, lateral width 1.4; clypeus: median length 0.9, apical and basal widths 2.35 & 1.25; antennae: lengths of scape 0.9, pedicel 0.02, flagellar segments 1st 0.27, 2nd 0.27, 3rd 0.42 and breadth of 4th 0.22; labrum: median length 0.4, basal and apical widths 1.12 & 0.9; mandible: lengths of dentate, inner & lower margins 1.5, 0.8 & 2.15; labial palpi: length of segment 1st 0.7 & 2nd 0.3; scutum: median length and maximum width 3.12 & 3.8; fore wing: total length 9.25 and relative widths of terga 1st to 5th 3.25, 4.32, 4.01, 3.85, 3.01 & 1.85.

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Figs. 1–3: *Megachile peniculata* sp. n., ♀.
1: Head, front view (dots indicate pubescence) – 2: mandible – 3: clypeus.

Male Not known.

Material examined Holotype ♀, Punjab Agricultural University campus, Ludhiana, 1. V. 1982, Coll. Rajiv K. GUPTA; paratypes 2 ♀, same data as for holotype. (Holotype at N.P.C., Entomology Division, I.A.R.I., New Delhi and paratypes presently with author himself, shall also be submitted to N.P.C. New Delhi).

Flower record *Murraya peniculata*.

Etymology This new species is named after the plant *Murraya peniculata*, from which the specimens were collected.

Remarks The new species described above has some resemblances with *Megachile vigilans* SMITH (= *albolineata* CAMERON, according to BINGHAM, 1897), (*Chalicodoma* [*Callomegachile*] *vigilans* n. comb.), however, *vigilans* distinctly differs from *peniculata* in: Its slightly small size (10–12 mm); flat clypeal surface; a distinct mid-facial line; incarinate occipital margin; absence of cutting edge in between interspaces of mandibular teeth; undivided scutellum; concavity margin of basal tergite incarinate; basal sternite much limited; elongated metasoma as compared of *peniculata*, where metasoma is of somewhat conical shape.

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Reference

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