

TWO NEW SPECIES OF A LITTLE KNOWN GENUS *MYRMECINA*
CURTIS (INSECTA : HYMENOPTERA : FORMICIDAE)
FROM KERALA, INDIA

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INTRODUCTION

The genus *Myrmecina*, described by Curtis (1829) for the reception of Type-species *Myrmecina latreilli* from South of England, belongs to subfamily Myrmecinae of the family Formicidae. Altogether 20 species under this genus (mostly small sized) have been reported from the world, viz., *M. bandarensis* Forel, 1913, *M. brevicornis* Emery, 1897, *M. butteli* Forel, 1913, *M. curtisi* Donisthorpe, 1829, *M. graminicola* (Latreille, 1802), *M. mandibularis* Vichmeyer, 1914, *M. opeiventris* Emery, 1897, *M. pilicornis* Smith, 1858, *M. polita* Emery, 1897, *M. punctata* Emery, 1897, *M. sauteri* Forel, 1912, *M. semipolita* Forel, 1905, *M. striata* Emery, 1890, *M. sulcata* Emery, 1887, *M. transversa* Emery, 1897, *M. undulata* Emery, 1900, *M. rugosa* Forel, 1902, *M. siculo* André', 1882. This genus is Indo-Malayan and Indo-Australian in distribution and has been reported from India, Burma, Sumatra, Kalimentau, China, Sulawesi, Taiwan, Java, New Guinea and New-Zealand.

The author wanted to place both the species under a new genus, basing on the nature of transverse striation on prothorax, and convergent longitudinal striation giving a shape of "Y" on the rest of alitrunk, which has never been reported in the species described under genus *Myrmecina* till date. However, for the time being, the species are described here under genus *Myrmecina*. In course of time, if the author comes across some other species and gets sufficient characters to separate it from *Myrmecina*, the new genus would be erected.

Myrmecina pilicornis ♂ Smith, 1858 from Bombay (India) is a doubtful species. Bingham (1903) mentions, "*M. pilicornis* Smith, 1858 is possibly a *Tetramorium* sp." If this may be the case, the record of this genus from India is a new record from Indian subcontinent.

***Myrmecina urbanii* sp. nov.**

(Fig. 1, a-d)

Description : Worker : Head and alitrunk dark reddish-brown ; antennae and pedicel paler ; legs brownish yellow ; abdomen dark brown, laterally and apically brownish yellow. Body fairly densely hairy ; mandibles fairly hairy ; clypeus with a few long anteriorly directed hairs.

Head capsule sub-squarish, deeply emarginate at posterior margin ; postero-lateral angles rounded ; dorsal surface longitudinally striated, sides weakly convex. Clypeus bi-carinate and tridentate, carinae fused with postero-lateral ridges. Eyes small (0.05 mm in diameter), round to oval, situated antero-laterally in front of middle of head and surrounded by paler area. Mandibles smooth, hairy ; masticatory margins with three teeth, molar plate with a number of round crenulations. Antennae 12-segmented ; scape shorter than flagellum, reaching almost upto the hind margin of the head or weakly extending beyond ; 1st segment of flagellum longer than succeeding segments ; club formed of 3 segments, apical segment of club longer than its two preceding segments put together.

Alitrunk convex above, triangular, gradually tapering posteriorly ; pronotum striated transversely ; meso and metanotum with posteriorly converging longitudinal striae, forming a distinct 'Y' shaped structure at its base ; anterior margin of pronotum round with narrow, rectangular collar ; pro-meso and meso-metanotal sutures somewhat discernible laterally ; pronotum armed with a small spine on each antero-lateral corner, spines directed downwards ; mesonotum armed with a pair of small acute spines, thick at base and situated at the postero-lateral end of the mesonotum ; metanotum armed with a pair of long spines directed outwards and slightly bent upwards at tips. Legs long ; fore tibia with a pectinate spur, pectination visible only under high power ; tarsi 5-jointed, with a pair of claws at the tip, 1st joint longer than succeeding joints put together. Pedicel 2-jointed ; 1st joint of pedicel longer than broad, flat dorsally and with weak longitudinal striae ; 2nd joint broader than long, coarsely striated, attached to the emarginated anterior end of abdomen.

Gaster broadly oval, truncated anteriorly to enclose the posterior end of post petiolar node ; smooth, in profile rounded beneath.

<i>Measurements</i>	<i>Range in mm. (2 exs.)</i>		
Total length of body (excluding antennae)	3.2	—	3.4
Length median of head including clypeus	0.77	—	0.87
Head width	0.73	—	0.75
Length of the scape	0.86	—	0.88
Maximum width of alitrunk	0.50	—	0.60
Maximum length of alitrunk	0.66	—	0.77
Maximum width of 1st pedicel	0.21	—	0.25
Maximum width of 2nd pedicel	0.27	—	0.30
Head Index (head length x 100/max. width)	96.70	—	103.90
Scape Head length Index (scape length x 100/head length)	112.5	—	112.9
Scape head width index (scape length x 100/head width)	116.8	—	117.0
Pedicel index (width of anterior pedicel x 100/width of posterior pedicel)	77.78	—	85.19

Holotype : 1 worker. India : Kerala : Thekkadi (2500 ft.), March, 1969 (coll. No. 029/4), coll. O.B. Chhotani and R. N. Tiwari. *Paratype* : 1 worker, same data as of *Holotype*.

Remarks : This species is similar to *M. striata* Emery (1890) in having colour pattern of the body, pilosity and pubescence, placement of the eye, scape reaching up to the top of the head ; but it differs with the same in having following characters : transverse striations on alitrunk, 'Y'-shaped striation on meso and metanotum, mesonotum armed with a pair of small acute spines and head longer than broad. The species is named in Honour of eminent Myrmecologist Dr. C.B. Urbani, Zoological Institute of the University, Rheinspring 9, CH-4051 Basel, Switzerland, and Naturhistorisches Museum Basel, CH-4001 Basel, Switzerland.

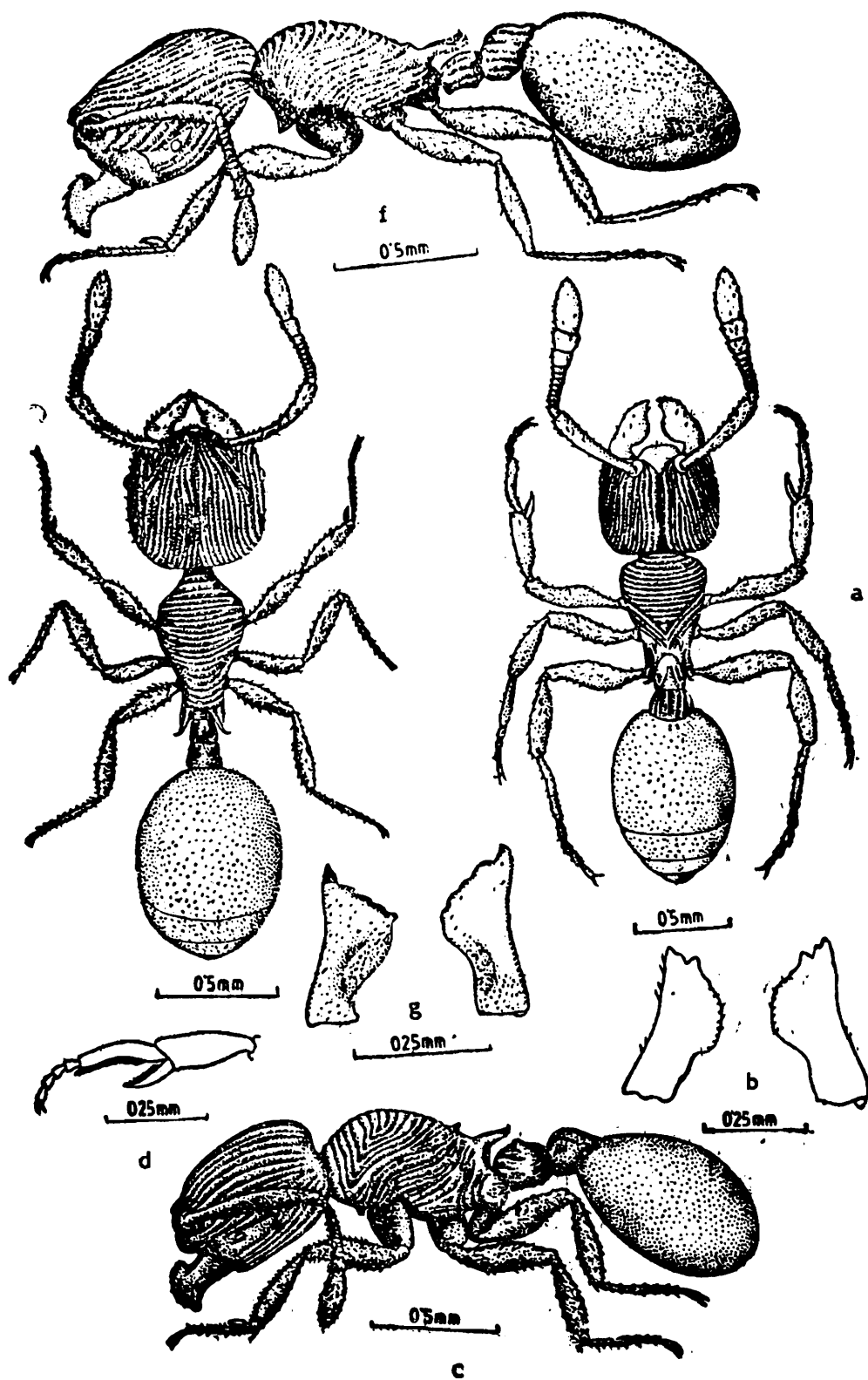


Fig. 1 (a-d): *Myrmecina urbanii* sp. nov.: (a) body, dorsal view; (b) mandibles, dorsal view; (c) body, lateral view; (d) anterior leg.

(e-g): *Myrmecina vidyae* sp. nov.: (e) body, dorsal view; (f) body, lateral view; (g) mandibles, dorsal view.

Myrmecina vidyae sp. nov.

(Fig. 1, e-g)

Description : Worker : Head excluding clypeus, antennae and mandibles, alitrunk, abdomen and post-petiolar node dark chocolate with blackish tint. Antennae, clypeus, mandibles, legs, metanotal spines and 1st petiolar node pale yellow. Hairs almost sparse on alitrunk, whitish in colour, rest of the body without hairs ; sparse pilosity on antennae, mandibles and dorsum of the abdomen.

Head excluding mandibles subsquarish, width slightly more than its length ; deeply emarginate at posterior margin ; postero-lateral angles of head slightly conical ; dorsal surface slightly striated, the striae outwardly divergent behind ; antennal carinae enlarged into a flap like structure covering the base of insertion of antennae. Clypeus non-carinate, anteriorly transverse and pressed, posteriorly extended in between the bases of antennae ; antennal and clypeal fossa confluent. Eyes small, round to oval, placed more anteriorly on antero-lateral side of the head, placement hardly differentiated from the surrounding portion of the head. Mandibles smooth, hairy, masticatory margin with one acute apical tooth ; molar plate with four round crenulations. Antennae 12-segmented, scape shorter than the flagellum ; 1st segment of the flagellum equal to 2 following segments put together ; club of flagellum formed of 3 apical segments ; scape hardly reaching to the top of the head.

Alitrunk convex above, triangular, gradually tapering posteriorly. Pronotum striated transversely ; meso and metanotum with slightly anteriorly divergent striae. Anterior margin of pronotum round with narrow triangular collar. Pro-meso and meso-metanotal suture somewhat discernible laterally ; pronotum armed with a small triangular spine on each antero-lateral corner ; mesonotum unarmed ; metanotum armed with a pair of long divergent spines, thick at the base, slightly bent outwardly at the apex, wide enough to enclose 1st petiolar node. Pedicel 2-jointed ; 1st joint longer than wide, rugose on its outer surface ; 2nd joint higher than the 1st, almost round, posterior end wider than the anterior with thick half downwardly divergent striae, the basal portion minutely granulated. Legs long ; tibiae of the fore leg with pectinate spur, pectination visible only under high power, femora and tibia swollen in middle ; tarsi 5-jointed with a pair of claws at the top ; 1st joint of tarsi smaller than the succeeding joints put together.

Gaster broadly oval with finer granulations on the dorsum, more prominent on the basal portion, distal portion comparatively with lesser granulations in profile rounded beneath.

<i>Measurements</i>	<i>Range in mm. (3 exs)</i>
Total length of body (excluding antennae)	2.28 — 3.00
Length median of head including clypeus	0.62 — 0.65
Head width	0.64 — 0.66
Maximum length of scape	0.52 — 0.55
Maximum width of alitrunk	0.46 — 0.49
Maximum length of alitrunk	0.08 — 0.09
Maximum width of 1st pedicel	0.18 — 0.19
Maximum width of 2nd pedicel	0.22 — 0.26
Head index (head length x 100/max. width)	96.8 — 98.2
Scape head length index (scape length x 100/head length)	83.87 — 84.0
Scape head width index (scape length x 100/head width)	81.2 — 81.5
Pedicel index (width of anterior pedicel x 100/width of post-pedicel)	81.8 — 82.2

Holotype : 1 worker. India : Kerala : Silent Valley Expedition camp site, 14.i.1980, coll. S. K. Bhattacharyya. **Paratypes** : 2 workers, same data as of Holotype.

Remarks : This species is close to *Myrmecina urbanii* sp. nov. in having body pattern, antennae, legs and thorax similar but it differs with the same in having following characters : mandibles with mandibular formula "1+6" i.e., one apical tooth and 6 small subapical teeth ; absence of mesonotal spine ; metanotal spines thinner and longer in shape ; striae on meso-metanotum outwardly divergent ; gaster not truncate anteriorly and having finer granulations all over the dorsum.

SUMMARY

This paper deals with the description of two new species of ants (Insecta : Hymenoptera : Formicidae), viz., *Myrmecina urbanii* sp. nov. and *Myrmecina vidyae* sp. nov. from Kerala, India. This genus is reported here for the first time from India.

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