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A NEW GENUS AND SUBGENUS OF MYRMICINÆ FROM TROPICAL AMERICA¹

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MYRMECINELLA, new genus

WORKER.—Small, monomorphic, with hard integument. Head somewhat flattened, moderately large. Mandibles convex, subtriangular, with well-developed, dentate apical border. Clypeus with a convex and projecting, subrectangular, bicarinate, median lobe, the sides depressed and feebly emarginate; the median portion not extending far back between the frontal carinæ. Eyes rather small, well in front of the middle of the head; ocelli absent. Frontal area distinct; frontal groove absent; frontal carinæ short and lobular. Antennæ 11-jointed; the funiculi with a large basal joint and a large 3-jointed club, the terminal joint of which is very large; joints 2 to 5 very short and transverse. Thorax small, considerably narrower than the head; the pro- and mesonotum convex and rounded above and at the humeri, without promesonotal suture above; mesoëpinotal constriction deep and selliform; epinotum unarmed. Petiole very small, epedunculate, subcuboidal, without a node, unless a strong and prominent, anterior, transverse ridge, terminating in a tooth on each side be regarded as such. Postpetiole very small, rounded. Gaster elliptical, nearly as large as the head, the first segment forming about half its surface. Legs with incrassate femora and tibiæ, the middle and hind tibiæ without spurs; tarsal claws simple.

FEMALE AND MALE.—Unknown.

GENOTYPE.—*M. panamana*, new species.

Myrmecinema panamana, new species²

Figure 1

WORKER.—Length, 2 mm.

Head a little longer than broad, slightly narrower in front than behind, with rounded sides and posterior corners and feebly sinuate posterior border; the dorsal surface on each side and posteriorly slightly impressed for the accommodation of the antennæ but scarcely scrobe-like. Eyes flattened, near the anterior third of the head. Mandibles apparently 5-toothed, the two apical teeth large, the others small and rather indistinct. Clypeal lobe feebly notched in the middle, with marginate sides and rather sharp corners. The two clypeal carinæ are continued back a short distance onto the front between the frontal carinæ. Frontal area small, triangular, not impressed. Antennal scapes not reaching the posterior corners of the head; funicular joints 2-7 small, subequal, much broader than long; joint 8 larger and about as

¹Contributions from the Entomological Laboratory, Bussey Institution, Harvard University. No. 208.

²Types of new species described in this paper will be deposited in The American Museum of Natural History.

broad as long but much smaller than the second joint of the club, which is distinctly longer than broad; terminal joint nearly twice as long as the preceding joint. The whole club is slightly longer than the remainder of the funiculus. Promesonotum somewhat longer than broad, subhemispherical in profile; epinotum narrower than the promesonotum, longer than broad, its base in profile straight and horizontal, slightly lower than the promesonotum and as long as the rather abrupt declivity into which it passes through a distinct angle. Petiole from above nearly square, the

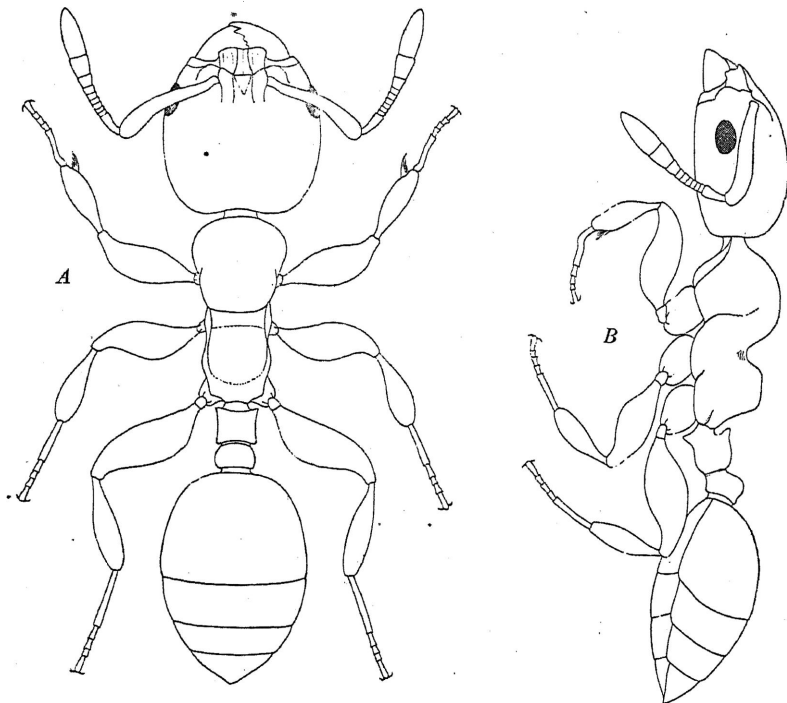


Fig. 1. *Myrmecina panamana*, new genus and new species. Worker. A, dorsal; B, lateral aspect.

sides feebly concave, the posterior corners nearly as sharp as the anterior corners which are formed by the ends of the peculiar, straight, transverse ridge; ventral surface with a large, triangular, downwardly directed tooth. Postpetiole as broad as the petiole but much shorter, nearly twice as broad as long, very convex and rounded above. Gaster rather flattened. Legs robust, with the femora, especially the fore and hind pairs, conspicuously thickened.

Mandibles shining, sparsely punctate; head, thorax, petiole and postpetiole subopaque. Clypeus with a few sharp longitudinal rugæ. Front and sides of head punctate and finely, longitudinally rugulose; the longitudinal mid-dorsal third, from the front to the occiput very smooth and shining, with very minute, sparse, piliger-

ous punctures. Thorax, petiole and postpetiole very evenly and finely reticulate-rugose. Gaster, antennal scapes and legs smooth and shining.

Hairs white, very delicate, sparse, subappressed, short and inconspicuous on the head, thorax and appendages, longer on the gaster.

Castaneous brown; mandibles, antennæ, pedicel and legs slightly paler, more yellowish brown.

Described from two specimens which I found running on the bark of a living tree at Colon, Panama.

The genus *Myrmecinella* evidently belongs in Emery's tribe Myrmecini, the type genus of which is *Myrmecina*, represented by several species in the Palearctic, Oriental, Papuan, Australian and Nearctic Regions. To the same tribe Emery assigns nine other genera, namely, *Podomyrma*, *Lordomyrma*, *Atopomyrmex*, *Dilobocondyla*, *Terataner*, *Atopula*, *Pristomyrmex*, *Acanthomyrmex* and *Dacryon*, all of which are confined to the Ethiopian, Oriental, Papuan and Australian Regions. *Myrmecinella* is therefore the only genus of the tribe that has come to light in tropical America. In its very small size and other characters it may be easily distinguished from any of the above-mentioned Old World genera.

PHEIDOLE subgenus **HENDECAPHEIDOLE**, new subgenus

While writing the description of *Pheidole tachigalia*, recently published in 'Zoologica' (Vol. 3, 1921, pp. 148-150), an ant which occurs in the leaf-petioles of *Tachigalia paniculata* Aublet and, as I have recently found, also in the stem-swellings of *Cordia nodosa* Lam. var. *hispidissima* Fres., I failed to count the antennal joints. I now find the number to be 11 in the soldier (Fig. 2A), worker, and female. The male is unknown, but Mr. Alfred Emerson has recently sent me another closely related undescribed species, represented by worker (Fig. 2B), female and male specimens. The male (Fig. 2C) also has 11-jointed antennæ, though the third funicular joint is long and shows a slight constriction in the middle on one side, indicating a fusion of two joints. It thus becomes necessary to place these two species in a new subgenus, which I will call *Hendecapheidole*, intermediate between *Pheidole*, *sensu stricto*, with 12-jointed antennæ in the soldier, worker and female and 13-jointed antennæ in the male, and the subgenus *Decapheidole* Forel, which has 10-jointed antennæ in the soldier and worker. The male *Decapheidole* is unknown. The species of both of the subgenera are very small in all four phases compared with the species of *Pheidole*, *sensu stricto*. I regard *Pheidole tachigaliæ* as the type of the subgenus *Hendecapheidole*. A description of the undescribed species, taken by Mr. Emerson and dedicated to him, is appended.

Pheidole (Hendecapheidole) emersoni, new species

WORKER.—Length, 1.3–1.6 mm.

Head subrectangular, as broad as long, scarcely narrower in front than behind, with nearly straight lateral and feebly emarginate posterior borders. Apical borders of mandibles with numerous minute, uneven teeth. Clypeus moderately convex, with entire, transverse anterior border. Frontal area distinct, elongate; frontal groove absent; frontal carinae very small and short. Eyes moderately convex, situated just in front of the middle of the head, their ommatidia large and rather few in number. Antennal scapes almost reaching the posterior corners of the head; first funicular joint fully twice as long as broad; second joint as long as broad, joints 3–7 shorter, club longer than the remainder of the funiculus, its two basal joints distinctly

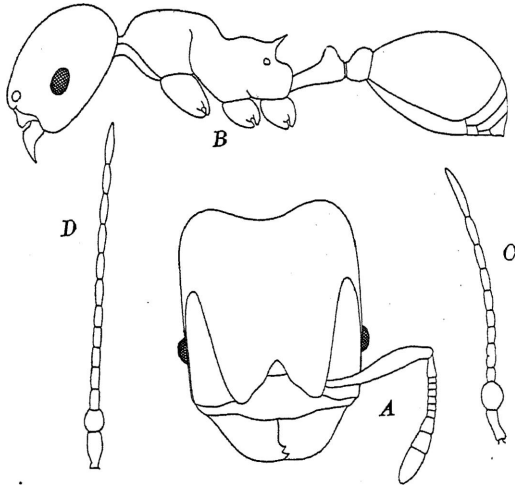


Fig. 2. A, *Pheidole (Hendecapheidole) tachigalix* Wheeler, head of soldier; B, *Pheidole (Hendecapheidole) emersoni*, new species; C, antenna of male of same species; D, antenna of male of *Pheidole pilifera* Roger.

longer than broad, together slightly shorter than the large terminal joint. Thorax similar to that of the *tachigalix* worker, the pro- and mesonotum forming a single convex mass, without suture or transverse welt, but the humeri are rounded and not prominent as in *tachigalix*. Mesoepinotal constriction short and deep; epinotum small, the base convex in profile, not longer than the declivity, the spines straight, acute, longer than broad at their bases but shorter than their distance apart, directed upward, outward and backward. Petiole small and slender, fully twice as long as broad and scarcely broader behind than in front, its sides straight and subparallel the node rather low but somewhat compressed anteroposteriorly, its border blunt and entire. Postpetiole small, only slightly broader than the petiole, broader than long, evenly rounded dorsally and laterally. Gaster oval, convex above, the anterior border of the first segment straight and transverse in the middle. Legs of the usual shape.

Mandibles smooth and shining; clypeus, head, thorax, petiole and ventral portion of postpetiole opaque, densely, finely and evenly punctate, or reticulate-rugulose; postpetiolar node, gaster, legs and antennal scapes smooth and shining.

Hairs whitish, long, erect and moderately abundant both on the body and appendages.

Brown; first gastric segment castaneous; head darker than the thorax and pedicel; mandibles, antennæ and legs brownish yellow.

FEMALE (deâlated).—Length, 2.3 mm.

Head shaped like that of the worker, but with more pronounced posterior corners and feeble scrobe-like impressions for the antennæ. Mandibles large and convex. Clypeus convex, with straight anterior border. Frontal area small, transverse, impressed. Eyes decidedly longer than their distance from the anterior margin of the head; gula with two acute teeth on its anterior border. Antennal scapes reaching only to about two-thirds the distance from the anterior to the posterior corners of the head. Thorax narrower than the head; broadly elliptical, the mesonotum and scutellum much flattened, the epinotal spines short, stout and acute. Petiole resembling that of the worker, but the anterior slope of the node is much less concave; postpetiole fully a third broader than the petiolar node, broader than long and broadest through the anterior corners, which are acute and projecting. Gaster elongate-elliptical, fully twice as long as broad; its anterior border concave.

Mandibles smooth and shining; clypeus, head, thorax, petiole and postpetiole opaque, finely and densely punctate, the scutellum and postpetiolar node smooth and shining. Clypeus indistinctly rugulose on the sides; head longitudinally rugulose, except on the scrobes, which are merely punctate. Gaster shining, with distinct, scattered, piligerous punctures. Similar punctures occur also on the scutellum and among the fine punctures of the mesonotum.

Hairs grayish and more abundant but in other respects much as in the worker.

Castaneous; mandibles and clypeus red; antennæ and legs brownish yellow.

MALE.—Length, 2.2–2.3 mm.

Head, excluding the eyes, longer than broad, broadly elliptical, not narrower in front than behind, flattened above. Eyes large, very close to the anterior border, less than half as long as the head. Mandibles small, spatulate, edentate. Clypeus feebly and evenly convex, with straight anterior border. Antennæ short, 11-jointed; scape very short, scarcely longer than the swollen, elliptical first funicular joint; third funicular joint twice as long as the second, with a transverse impression in the middle on one side; two succeeding joints each a little longer than the second funicular, the more apical joints longer, the last twice as long as the penultimate. Thorax long, broader than the head through the mesonotum which is convex anteriorly and flattened behind, without Mayrian furrows. Epinotum small, convex, its base and declivity scarcely distinct. Petiolar node very low, the postpetiole a little broader, as long as broad, not convex above and with rather straight sides. Gaster elongate-elliptical, with very distinct cerci. Legs slender. Wing venation as in typical *Pheidole*.

Opaque; very finely and densely punctate; gaster, mesopleuræ, mandibles, antennæ and legs smooth and shining; nodes of petiole and postpetiole also rather smooth.

Pilosity grayish and similar to that of the female but shorter. Wings also minutely hairy throughout, their posterior borders with long cilia.

Head and mesonotum black; remainder of body piceous, except the mandibles, antennæ, legs and genitalia, which are smoky yellowish. Mouth-parts whitish. Wings infuscated, with brown veins and pterostigma, the latter darker.

Described from numerous workers, a female and eight males taken by Mr. Alfred Emerson from a single colony nesting in a small cell within a termite nest at Kartabo, British Guiana. The species is close to *tachigaliæ*, but the females can be readily distinguished by striking differences in size, color, sculpture, and the development of the antennal scrobes. The worker *emersoni* is much darker than that of *tachigaliæ* and has the promesonotum more rounded above and with much less prominent humeri.