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## THREE NEW GENERA OF ANTS FROM THE DUTCH EAST INDIES<sup>1</sup>

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### **AMAUROMYRMEX**, new genus

WORKER.—Monomorphic, slender. Head moderately large; eyes very small, situated at the sides and slightly in front of its middle; ocelli absent. Mandibles subtriangular, dentate. Clypeus short and broad, extending back between the frontal carinae, its anterior border without teeth or carinae. Frontal carinae well-developed but short, slightly closer together than their distance from the lateral borders of the head. Frontal groove absent; frontal area rather large but indistinct. Antennae slender, 11-jointed, funiculus with club consisting of two nearly equal joints; first funicular joint more than twice as long as broad, joints 2-8 small, subequal. Thorax slender; pro- and epinotum each with a pair of spines; promesonotal and mesoepinotal sutures obsolete; mesoepinotal constriction distinct. Petiole slender, with well-developed node, its lower surface unarmed; postpetiole evenly convex above. Gaster small; the first segment forming nearly three-fourths of its surface. Sting vestigial. Legs long, femora thickened apically; spurs of the posterior tibiae delicate, scarcely thicker than the hairs, non-pectinate. Claws simple. Integument thick, sculptured, sparsely hairy.

GENOTYPE.—*Amauromyrmex speculifrons*, new species.

### **Amauromyrmex speculifrons**, new species

Figure 1

WORKER.—Length, 2.5-3.5 mm.

Head slightly longer than broad, as broad in front as behind, with evenly convex lateral borders and concave posterior border; occipital border marginate; vertex and gula in profile flattened, especially behind. Eyes consisting of less than a dozen unequal facets. Clypeus somewhat flattened in the middle, the anterior border with a small, indistinct median emargination. Mandibles with convex external borders, 6-toothed, the two apical teeth and the basal tooth large, the three remaining teeth very small, separated by a diastema from the second tooth and diminishing in size towards the base. Antennae slender; scapes straight, slightly enlarged towards their tips, which extend somewhat beyond the posterior corners of the head; first funicular joint about three times as long as broad; joints 2-8 distinctly longer than broad; club somewhat shorter than the remainder of the funiculus, its two joints rather slender, the basal narrower than the apical and about three-fourths as long. Thorax

<sup>1</sup>Contribution from the Entomological Laboratory of the Bussey Institution, Harvard University, No. 309.

slender, decidedly narrower than the head, broadest through the pronotum; the meso- and epinotum narrow; pronotum slightly longer than broad, evenly elliptical from above, its dorsal surface depressed and moderately flattened, very feebly convex in profile; the pair of spines rather blunt, somewhat longer than broad at their bases, flattened and projecting outward and slightly forward and upward. From the base of each spine backward, the sides of the pronotum are distinctly marginate. The mesonotum seen from above is rectangular and parallel-sided, longer than broad; it gradually slopes downward and backward to the mesoepinotal constriction. Epinotum

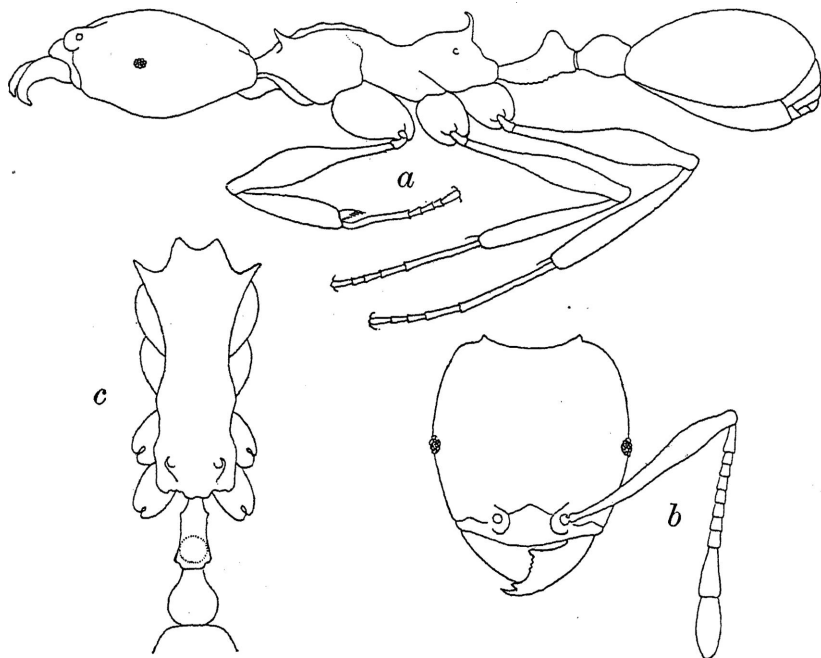


Fig. 1. *Amauromyrmex speculifrons*, new genus and species.

a, worker in profile; b, head of same, dorsal view; c, thorax and petiole, dorsal view.

broader than the mesonotum, somewhat broader than long; its base moderately convex in profile, longer than the declivity, which is vertical, marginate on the sides and rather concave medially; the spines are as long as their distance apart at the base, slender and acute, directed upward and outward and with their tips curved forward. Petiole very slender, nearly three times as long as broad, gradually broadened behind where it bears a rounded-conical node, through which the petiole is as high as the length of the peduncle; ventral surface evenly convex and finely crenulate in profile. Postpetiole fully half again as broad as the petiole, nearly one and one-half times as long as broad, subelliptical in profile, evenly convex above but decidedly lower than the petiolar node. Gaster smaller than the head, elongate elliptical, narrowed anteriorly. Distal halves of femora decidedly thickened, their bases and the tibiae slender.

Feebly shining; mandibles subopaque, sharply and densely striate; front of head over a squarish area bounded anteriorly by the frontal carinæ and as far back as the posterior fourth, very smooth and shining; remainder of head, thorax and petiole sharply and regularly reticulate-rugulose, the gula anteriorly and the cheeks with longitudinal rugæ. The latter spread out fan-wise around the antennal foveæ. There are rugæ also on the thoracic dorsum but they are irregular, loose and vermiculate; sides of epinotum with several longitudinal rugæ. Petiole more finely reticulate than the thorax. Postpetiole, gaster and legs shining but with rather uneven surface and with sparse piligerous punctures. Scapes and coxæ indistinctly shagreened, less shining than the legs.

Hairs yellowish, coarse, sparse, pointed, of very uneven length; long and erect on the dorsal surface, especially on the pronotum, clypeus and gaster; shorter and oblique on the legs and scapes.

Mandibles, head, thorax and coxæ deep reddish brown; petiole, postpetiole, gaster, legs and antennæ paler and more yellowish brown; first gastric segment, except anteriorly, dark brown.

Described from seven specimens taken by Dr. E. Mjöberg on Mt. Poi, at an altitude of 8000 ft., Sarawak, Borneo (type-locality), and eight specimens, taken by Dr. K. Dammerman at Doerian in the Riouw Archipelago, near Singapore. Four of the latter series are defective.

The genus *Amauromyrmex* is obviously related to *Pheidologeton* Mayr, but there is nothing to indicate that the worker is represented by any large media or soldier form in addition to the form above described. Moreover, no species of *Pheidologeton* is known to have spines on the pronotum. The affinities of the new genus to the two known species of *Erebomyrma* Wheeler from Texas and Peru, and especially to *Spelæomyrmex wrichi* Wheeler from Trinidad, seem to be much closer, but *Spelæomyrmex* has the clypeus toothed and carinate, the basal joint of the antennal club only one-third as long as the terminal joint, the pronotum merely angulate at the humeri and the posterior tibiæ without spurs. In most other respects the resemblance is striking. *Amauromyrmex* also resembles *Lophomyrmex* Emery, especially in the structure of the pronotum, but the latter genus has a 3-jointed antennal club and distinct promesonotal and mesoëpinotal sutures. The small eyes and long, sparse, erect hairs seem to indicate that *Amauromyrmex* is hypogæic in habits like *Erebomyrma* and *Spelæomyrmex*.

#### BREGMATOMYRMA, new genus

FEMALE.—Robust, with thick, smooth integument. Head very high and convex in the middle, depressed at the posterior corners, which are rounded; the occiput deeply excised in the middle. Eyes very prominent but rather small, situated at the sides of the head and just in front of its middle. Ocelli large and prominent. Palpi very small and short. Mandibles well-developed, subtriangular, dentate, narrow at the bases which are inserted rather far apart near the anterior corners of the head. Clyp-

eus broad and short with nearly straight anterior border; its posterior border straight and not continued back between the frontal carinae. The latter very short and neither prominent nor covering the antennal insertions, sigmoidal, moderately far apart. Antennae 12-jointed, long, inserted very close to the clypeus; scape stout, funiculus very slender, not thickened towards the tip; first joint shorter than the second. Antennal and clypeal foveae not confluent, the latter indistinct. Thorax robust and massive, broader than the head; mesonotum very prominent anteriorly, epinotum smooth and unarmed, its spiracles circular. Petiole large, with a very thick, rounded node above. Gaster short and subglobose, not longer than broad, very convex above; first segment short, not longer than the second and third together. Legs very long; femora, tibiae and metatarsi flattened; spurs of posterior tibiae very small and short. Claws simple. Wings lacking.

GENOTYPE.—*Bregmatomyrma carnos*a, new species.

### ***Bregmatomyrma carnos*a, new species**

#### Figure 2

FEMALE (deälated).—Length, 7 mm.

Head distinctly broader than long; very slightly narrower in front than behind, with straight sides; the posterior border broadly, deeply and arcuately excised, the posterior corners rounded and lobular, but thick; the front and ocellar region very high and convex, the surface falling abruptly and almost perpendicularly behind the posterior ocelli to the occipital foramen and less abruptly and concavely to each posterior lobe. The prominent eyes are nearly circular, distinctly shorter than their distance from the anterior corners of the head. Mandibles long and rather narrow with feebly concave external borders and subequal basal and apical borders, the latter oblique and 5-toothed, their terminal tooth long and curved, the others subequal and rather broad. The mandibles overlap but leave a space between their inner angles and the clypeus. Clypeus not reaching to the corners of the head, nearly twice as broad as long, somewhat convex in the middle, its anterior border entire and feebly rounded. Frontal area small and indistinct, triangular; frontal groove represented by a distinct, narrow ridge extending back to the anterior ocellus. Frontal carinae strongly diverging posteriorly. Antennal scapes curved only at the extreme base, otherwise straight, slightly dilated and flattened, extending about one-fourth their length beyond the posterior corners of the head; first funicular joint three times as long as broad; the remaining joints, except the last, gradually decreasing in length and all of the same thickness, the last joint somewhat more slender and as long as the two penultimate joints together. Thorax broader than the head, the mesonotum, scutellum and epinotum all broader than long; the pro- and mesonotum together as broad as long and nearly equalling the greatest height of the thorax. Mesonotum anteriorly continuing the vertical outline of the pronotum, the posterior surface very feebly ridged in the middle, its outline in profile nearly straight and horizontal. Behind the mesonotum the outline of the scutellum and epinotum form a gently sloping curve, the epinotum being evenly convex, without a distinct base and declivity. Petiolar node half as broad as the epinotum and less than one and one-half times as broad as long; from above broadly elliptical. In profile the petiole is somewhat higher than long, its ventral surface with a median convexity, its node thick and erect, with subequal, convex anterior and posterior surfaces and bluntly rounded apex.

Gaster broader than the thorax but shorter, its anterior border straight and transverse, rather sharply angulate on each side. Circumanal cilia long and bristly. Legs long, the femora, tibiae and metatarsi distinctly flattened, the anterior femora not enlarged.

Mandibles, scapes, legs, gaster and petiole, except the anterior surface of the node, smooth and shining; mandibles coarsely punctate and along the dental border finely striolate. Head, thorax, coxæ and anterior surface of petiolar node subopaque, very finely reticulate punctate.

Hairs yellowish, fine and short, absent on the body, except the clypeus, suberect and moderately numerous on the legs and mandibles, sparse on the anterior surface of the scapes. Head, thorax, coxæ and anterior surface of the petiolar node covered with dense, fine, appressed, golden pubescence, which does not completely conceal the underlying integument though it produces a silky lustre. Antennal funiculi with longer, less appressed pubescence.

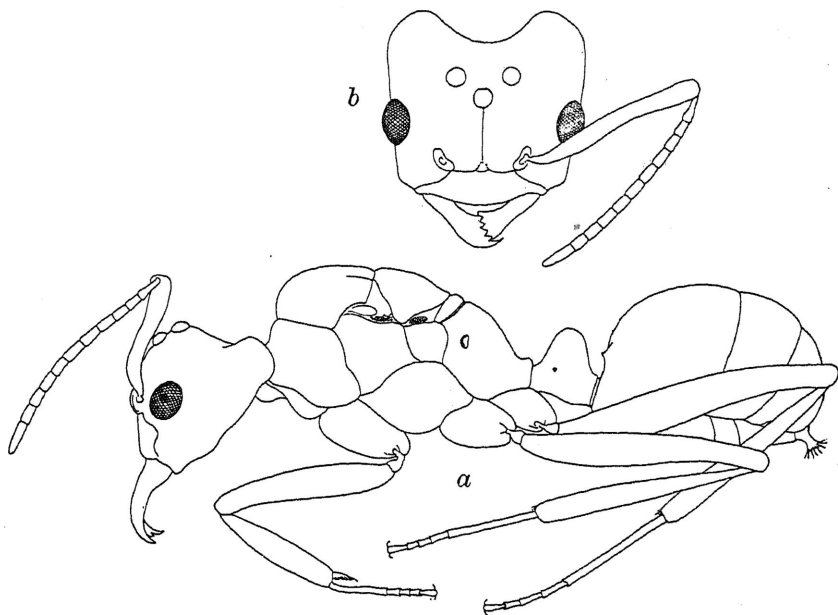


Fig. 2. *Bregmatomyrma carnosa*, new genus and species.  
a, female (deallated), in profile; b, head of same, dorsal view.

Deep blood-red; the head, thorax, coxæ and anterior surface of the petiolar node darker and more blackish, but the sutures, wing-insertions and upper portions of the mesopleuræ paler and more ferruginous.

Described from a single specimen taken by Dr. E. Mjöberg at Pajan, in Dutch East Borneo.

This extraordinary ant is evidently to be regarded as the representative of a new tribe of Formicinae, which may be called the **Bregmatomyr-**

**mini**, but the precise position of this group among the known tribes of the subfamily cannot be determined till the worker and male have been secured and the gizzard examined. The general habitus of the insect somewhat resembles that of *Pseudolasius* and suggests that it might be placed, for the present, near the tribe *Lasiini*.

#### **MYRMAPATETES, new genus**

**MALE**.—Head rather large and broad, with very large eyes, which take up nearly the whole of its sides; ocelli large and prominent; cheeks extremely short; face narrowed upward; clypeus extending backward in a blunt point between the antennal insertions, which are close together. Frontal carinæ undeveloped. Palpi very slender and delicate; the maxillary pair apparently 6-jointed, the labial pair 4-jointed. Mandibles very small, vestigial, drawn out at the tip into a long slender point. Antennæ 13-jointed, very slender and filiform; scape much shorter than the second funicular joint; first funicular joint small, not swollen. Thorax decidedly narrower than the head; pronotum well-developed, not overarched by the mesonotum, the latter with deep Mayrian furrows. Petiole with large erect node. Gaster short, with rather voluminous, exerted genitalia; last tergite somewhat beak-shaped, pointed. Cerci present. Legs slender; all the tibiæ with well-developed spurs. Claws simple. Wings with two cubital cells, a rather small discoidal and a closed submarginal cell.

**GENOTYPE**.—*Myrmapatetes flicornis*, new species.

#### ***Myrmapatetes flicornis*, new species**

##### Figure 3

**MALE**.—Length, 4.8 mm.; fore wing, 4.3 mm.

Head transversely elliptical, nearly one and one-third times as broad as long, with concave occipital surface and resembling the head of a dipteran. Antennæ inserted a little below the middle of the face. Clypeus as long as broad, subtriangular, moderately convex in the middle, with nearly straight anterior border. Frontal groove distinct anteriorly, posteriorly continued back as a rather deep impression to the anterior ocellus. Antennal scapes about two and one-half times as long as broad, cylindrical, broader than the funiculi; first joint of the latter a little longer than broad; joints 2-9 slender and elongate, gradually diminishing in length distally; joints 10 and 11 subequal, together as long as the preceding and terminal joint. Thorax about twice as long as broad, broadest through the mesonotum; pronotum transversely swollen; mesonotum and scutellum convex; epinotum evenly rounded and sloping, without distinct base and declivity. Petiole higher than long, the node thick, higher than broad, broader above than below, cuneate in profile, with subequal, flat anterior and posterior surfaces and blunt apex. Gaster elliptical, the first segment high and subtruncate anteriorly; external genital valves subquadrate, with broad excised apical border.

Head subopaque, very finely punctate-reticulate; thorax, petiole and gaster more shining, superficially and very finely punctate. Mayrian furrows on the mesonotum transversely rugose.

Hairs yellowish, short, rather few and scattered on the thorax, more numerous on the border of the petiolar node and on the gaster, especially on the venter. Whole body and appendages covered with very fine, appressed whitish pubescence, not very conspicuous or sufficiently dense to hide the underlying integument.

Brownish black; mandibles, mouthparts, tarsi and articulations of legs dull brownish yellow. Wings uniformly tinged with brown, with brown stigma and veins.

Described from a single specimen taken during December, 1907, by Dr. F. Muir, on the Island of Larat, near New Guinea.

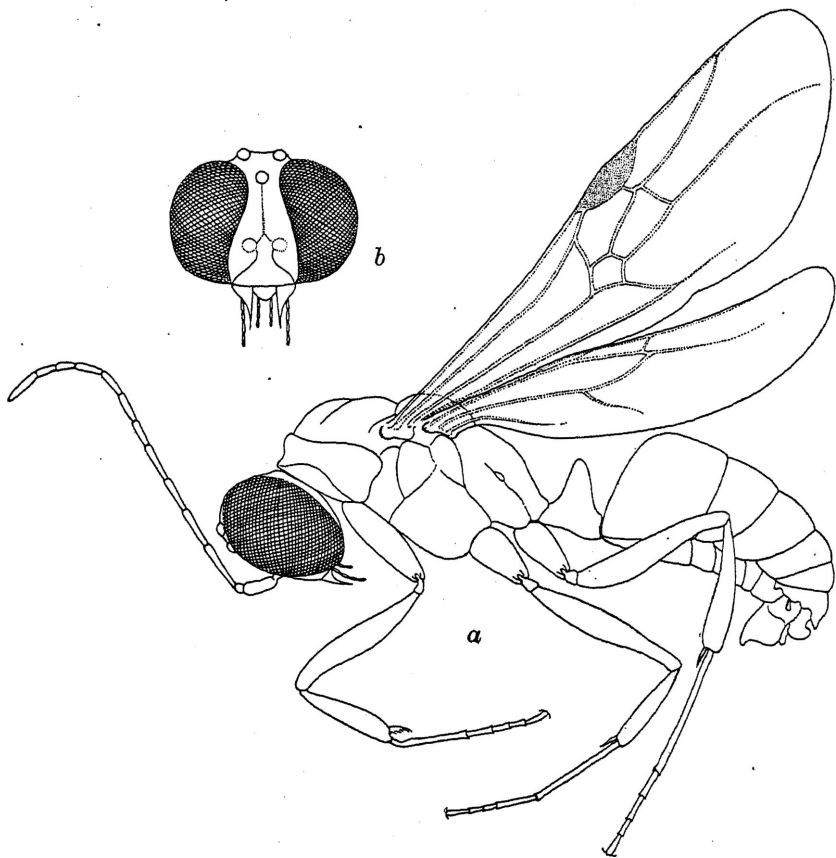


Fig. 3. *Myrmapatetes filicornis*, new genus and species.  
a, male, in profile; b, head of same, from front.

I have hesitated to describe this singular ant, which has been in my collection for many years, because its affinities seemed to be so obscure. It is obviously one of the Dolichoderinæ and resembles the male of *Dolichoderus* in wing-venation and the structure of the gaster and

genitalia, but in no dolichoderine genus known to me does the male have Mayrian furrows on the mesonotum, or such peculiarly reduced mandibles, slender palpi and antennæ. The male of the primitive genus *Aneuretus*, however, is still unknown, and it is therefore possible that the specimen from Larat may belong to this or to some allied genus of which the worker has not been seen.