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New Formicidae from Kenya and Uganda

 $\mathbf{B}\mathbf{Y}$

G. ARNOLD

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The National Museum of Southern Rhodesia, Bulawayo

Subfamily Ponerinae

Simopone laevissima sp. n. (figs 1, 1a)

\$\times\$ 7 mm. long. Jet black, the scapes, middle and hind tibiae fusco-ferruginous, the flagellum and all the tarsi ferruginous. Anterior corners of the pronotum, the petiole and sides of the tergites with a few, very long, exserted and pale yellow hairs, the apical tergite and sternite with a similar but more abundant pubescence. The whole body polished, very shining and with a very fine and sparse puncturation, the interspaces for the greater part ten times wider than the punctures, and even wider on the abdomen. Mandibles very convex, edentate, and with a few small punctures.

Head, excluding the mandibles, one-fifth longer than wide behind the eyes, where it is widest and one-fourth wider than at the anterior margin. Clypeus without carinae, its anterior margin convex, the hind margin indistinct. Scapes three times longer than wide at the apex. First three joints of the flagellum as long as wide, the fourth to ninth joints slightly longer than wide, the apical joint a little more than twice as long as wide. Frontal carinae strongly divergent caudad, extending back to the level of the middle of the eyes. The sides of the head in front, behind the antennal sockets, swollen, forming an elongate tubercle. Eyes very prominent, placed in the middle of the sides. Occipital margin feebly concave, the posterior corners of the head rounded. Three very small ocelli are present. Pronotum sharply marginate in front, moderately convex transversely, one-ninth wider in front than behind, one and a half times wider in front than long, the anterior angles acute. Pro-mesonotal and meso-epinotal sutures very shallow. Mesonotum three-fifths wider than long. Dorsum of the epinotum one-fifth wider behind than long, slightly wider behind than in front, the declivity flat, subvertical and a little more than half as long as the dorsum.

Petiole gradually widened caudad, one-fifth wider behind than in front, the dorsal face convex transversely and lengthwise, one-fourth longer than wide, the posterior angles rounded, the hind margin distinctly concave. First tergite as long as wide, the second shorter than the first and about one-fourth wider than long. Fifth tergite strongly convex transversely, the apex acute.

Dedewe Forest, on the Lake shore, near Kampala, Uganda. One specimen climbing the trunk of a palm tree. Type in the National Museum Southern Rhodesia.

Although the colour is so different, this species is more nearly related to S. marleyi ARN. than to the other Ethiopian species from which it differs by the very fine and sparse puncturation.

Platythyrea occidentalis E. André (figs. 2, 2a).

1890 Rev. d'Ent. Caen, 9, 315, ♀.

\$\times\$ (hitherto undescribed), 7 mm. long. Black. Mandibles, antennae and legs brownish red, all the femora and the basitarsi of the middle and hind legs somewhat darker. Whole body dull, microscopically reticulate-punctate (magnification 70 diameters) and with a fine puncturation superimposed. On the head these punctures are round and largest on the anterior half of the upper side, excluding the inter-antennal

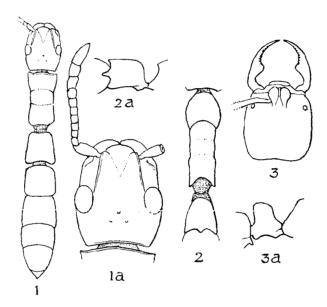
291

area and lateral margins, elsewhere very fine and sparse. On the thorax the punctures are less than half as large as the largest on the head and very shallow, the interspaces three to four times wider than the punctures. On the petiole and first tergite the punctures are oblique, a little larger than those of the thorax, and on the abdomen very much smaller. Mandibles dull, the masticatory margin denticulate.

Anterior margin of the clypeus depressed, the upper part triangular and convex. First joint of the flagellum nearly twice as long as wide, the second joint two and two-fifths longer than wide at the apex, and nearly twice as long as the third. Head three-eighths longer than wide, the sides feebly convex, the hind margin slightly concave. Pronotum about one-sixth wider than long.

Meso-epinotum, measured from the anterior margin to the apex of the epinotal teeth, nearly twice as long as wide, hind margin of the epinotal dorsum with a triangular tooth on each side; the declivity concave. Petiole one and a half times wider behind than in front, one-fifth longer in the middle than wide behind, the anterior margin of the dorsal face convex, the hind margin tridentate, the middle tooth shorter and blunter than the lateral.

Zika Forest, about six miles north of Entebbe, Uganda. One specimen crawling over a large and imbricated *Cubitermes* nest which was attached to a tree trunk in dense shade. In the same situation several



specimens of *Platythyrea frontalis* Em. were also taken. Although the colour is a little darker than in the $^{\circ}$ type of the species, there can be no doubt that this is the $^{\circ}$ of *occidentalis*, on account of the long second joint of the flagellum. Type of the $^{\circ}$ in the National Museum, Southern Rhodesia.

Bothroponera pachyderma EMERY.

1901 Ann. Soc. Ent. Belg. 45, 49, ♥, ♥.

In the description of this species, and also in those of *P. cariosa* and *P. strigulosa*, Emery omitted mention of any mensurable characters. Specimens collected in the Mabira and Zika forests, Uganda, agree well with Emery's description in regard to size, colour and sculpture. The following notes will therefore assist in identifying this species.

All the joints of the flagellum at least one and a half times wider than long. Head, excluding the mandibles, very little (one-sixteenth) longer than wide. Petiole not quite one-third wider behind than in front, one-third wider behind than in the middle, the hind margin not concave in the middle. First abdominal segment or postpetiole one-sixth wider than long, the second with a shallow triangular depression in the middle at the base.

Plectroctena mandibularis mabirensis subsp. n. (figs 3, 3a).

P. mandibularis Smith. 1858, Cat. Hymen. B. M. 6, 101.

\$\times\$ 13,5 mm. long. Mandibles, head and the second tergite closely, longitudinally striate, the striation on the head larger than on the tergite. Clypeus obliquely striate. Head with large, shallow and pitted punctures, each about one-third as wide as the first joint of the flagellum, the interspaces at least twice as wide as the punctures. Thorax finely and sparsely punctured, the pronotum with a few larger and widely spaced punctures, and without a median longitudinal sulcus. Epinotal dorsum with a well-defined median longitudinal sulcus. The puncturation of the petiole is very fine and sparse, that of the first two abdominal segments also sparse but not quite as small as on the petiole, the punctures on the second segment elongated.

Mandibles thin, very acute at the apex, without the groove behind the inner margin which is present in *mandibularis* i. sp., the inner margin denticulate, roundly dilated behind the middle but not with an angular tooth which is present in the type of the species. First five joints of the flagellum longer than wide, the second joint very nearly twice as long as wide at the apex and half as long again as the third. Dorsum of the epinotum as long as the meso-metanotum (much shorter in the type of the species) and horizontal. Dorsal

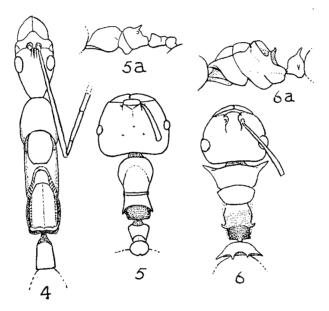


Fig. 4 Lobopelta cursor x ca 10. 5, 5a Crematogaster kachelibac x 16. 6, 6a Polyrachnis fissa ugandensis x 12.

face of the petiole nearly twice as wide as long, not wider behind than in front. Otherwise like the type of the species.

Mabira Forest, Uganda. Two specimens on a path in dense schade. This subspecies differs from the var. integra Santschi by the size, striation of the head and of the second abdominal segment. From the subspecies strigosa Emery it differs by its smaller size, the absence of the median sulcus on the pronotum and the absence of striation on the petiole and postpetiole.

Leptogenys (Lobopelta) cursor sp. n. (fig. 4).

\$\times\$ 9,3 mm. long. Black, the last two abdominal segments brownish ochreous, the mandibles, antennae and legs, dark reddish brown. Mandibles and clypeus with a few long, erect and yellowish hairs, the abdomen with a sparse, short and yellowish grey pubescence. Mandibles with a few large punctures. Pronotum and tergites with a very fine and sparse puncturation. Dorsum of the epinotum with a shallow median longitudinal sulcus and also with a trace of transverse striae. The meso-metapleural and the metapleural-epinotal sutures with several oblique costae. The whole body smooth and shining. Head, including the closed mandibles, narrowly ovoid, and from the apex of the clypeus to the occipital margin one and a half times

longer than wide. Mandibles large, the outer margin two-thirds longer than the basal. Clypeus triangular, the apex rounded. Eyes placed at the middle of the sides, large, oval and as long as the first joint of the flagellum. Antennae very long and thin, the scapes extend back as far as the meso-metanotal suture; the first joint of the flagellum is a little more than three times longer than wide, the second is five times longer than wide, twice as long as the first and one third longer than the third joint, all the remaining joints much longer than wide. Pronotum widest behind the middle, narrower in front than behind, a little longer than wide, the sides very convex, half as long again as the mesonotum. The latter is one-third longer than wide. Metanotum margined by a sinuate groove. All the thoracic sutures distinct. Dorsum of the epinotum widened caudad, twice as wide behind as in front, convex transversely and lengthwise, about two-thirds longer than wide; the declivity very short and vertical, separated from the dorsum by a sharp ridge. Petiole convex lengthwise, moderately so transversely, one-third wider behind than in front, five-sixths longer than wide behind and two-thirds longer than the vertical posterior face. Legs long and slender, the hind femora as long as the thorax less the length of the petiole.

Zika Forest, near Entebbe, Uganda. One specimen on a path in dense shade. This is the largest of the Ethiopian species of *Lobopelta* and distinguished from them all by the very long antennae, the costate pleural sutures and the shape of the petiole. Type in the National Museum, Southern Rhodesia.

Subfamily Myrmicinae

Crematogaster (Sphaerocrema) kachelibae sp. n. (figs 5, 5a).

♥ 4-4,2 mm. long. Antennae, head, thorax, petiole, postpetiole and legs bright ferruginous (pale burnt sienna), the abdomen black. Smooth and shining. The anterior corners of the head longitudinally striate. Meso- and metapleura and sides of the epinotum transversely rugose, the dorsum of the epinotum coarsely rugose, the rugae in the majority of the specimens longitudinal or diagonal, but in some others distinctly transverse. Mandibles quadridentate, closely striate. Head, including the closed mandibles, slightly wider than long, twice as wide as the pronotum, very convex lengthwise and transversely. Anterior margin of the clypeus straight. Frontal carinae short and parallel. Eyes placed in the middle of the sides. Three snallow pits represent traces of the ocelli. The scapes extend back beyond the level of the eyes by hardly more than the length of the first joint of the flagellum. The latter is twice as long as wide, the second to sixth joints wider than long, the last three joints form a very distinct club of which the apical joint is twice as long as wide, and nearly twice as long as the penultimate joint. Pro-mesonotum as long as wide, the suture only faintly indicated. Dorsum of the epinotum twice as wide at the base as long, the apical teeth triangular, nearly as long as wide at the base and divergent. Petiole as long as wide in front, the anterior corners rounded, the space between them concave. Postpetiole a little narrower than the petiole, one-third wider than long, the hind margin feebly indented in the middle.

Kacheliba, Suk valley, Kenya. A populous nest under a piece of dry bark on a fig tree. Easily distinguished from the other species of the subgenus by the colour, the very wide head, short scapes and the traces of the three ocelli. It is not related to *C. gambiensis* E André and its varieties, in which the head is much narrower. Type in the National Museum, Southern Rhodesia, paratypes in the British Museum.

Subfamily Camponotinae

Polyrachis (Myrma) fissa ugandensis subsp. n. (figs 6, 6a).

- P. fissa Mayr. 1902, Verh. Zool. Bot. Ges. Wien. 52, 301.
- \$\times\$ 5,5 mm. long. This subspecies differs from the type form as follows. Tarsi entirely black. Flagellum brownish red. Anterior margin of the clypeus, anterior fourth of the pronotum and the sides of the mesonotum with a few erect and yellowish hairs, the abdomen with a very sparse, microscopic and decumbent pubescence, otherwise glabrous. Head very shining, not longitudinally striate but with a microscopic reticulation which is barely visible under a magnification of less than 30 diameters. Sides of the lower half of the mesopleura reticulate, and of the sides of the epinotum transversely striate. Otherwise like the typi-

cal form. The longitudinal carinae which margin the underside of the head, to which MAYR directs attention in his description, are also well developed in this subspecies. They are, however, not a specific character, being present in some degree in most of the species of the subgenus.

Entebbe, Uganda, Botanical Gardens. One specimen running on the ground. As a thorough search revealed no other specimens, it is probably an arboreal species of which this specimen had dropped to the ground. As Mayr's description was not accompanied by a drawing, I have added two text figures. Type in the National Museum, Southern Rhodesia.