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## NEW SPECIES OF AFRICAN HYMENOPTERA No. 9

BY DR GEORGE ARNOLD

Unless otherwise stated, the types of species described herein are in the National Museum of Southern Rhodesia. Paratypes in the collections of the British, South African and Transvaal Museums are indicated by the initials, B.M., S.A.M. and T.M.

### Family FORMICIDAE

#### Subfamily CERAPACHYINAE

✓/ *Cerapachys variolosus* n.sp. (Fig. 1) = *C. sudanensis*

♀. 2.8-3 mm. long. Blackish brown. Mandibles, apical margin of the clypeus, antennae, tarsi, apical margins of the abdominal segments and the whole apical tergite, brownish ochreous. Femora and tibiae brown, paler at the base and apex. Whole body moderately shining, pubescence yellow, sparse and decumbent, long on the abdomen. Mandibles and scapes finely and sparsely punctured. Dorsal surface of the head, excepting a median anterior and more or less semicircular smooth area, strongly but not closely punctured, the interspaces about twice as wide as the punctures. The cheeks below the level of the eyes with only three or four small punctures. The puncturation of the thorax and of the first abdominal segment is coarse, somewhat unequal, the largest punctures being on the epinotum and all at least twice as large as those on the head, with interspaces about as wide as the punctures on the thorax, somewhat smaller on the first abdominal segment. The petiole has a very coarse, deep and large puncturation, larger than elsewhere, the interspaces barely half as wide as the punctures. Second abdominal segment finely and sparsely punctured. Head, from the genal to the posterior angles, one-seventh longer than wide, widest in the middle, the sides moderately convex, the posterior angles rectangular, the occipital margin moderately concave. Clypeus and frontal carinae as in *C. cooperi* Arn. Masticatory margin of the mandibles without distinct teeth, only feebly denticulate. Pro-mesonotal and meso-epinotal sutures faintly defined at the sides, almost obsolete in the middle. The dorsum of the pronotum is separated from the declivous anterior face by a distinct and fine transverse carina. Epinotum twice as wide as long in the middle, widest in the middle, the hind margin and the very small lateral teeth as in *C. cooperi*. Petiole widening posteriorly, the posterior margin nearly straight, transverse, and one-seventh wider than the anterior margin, the lateral margins feebly convex, the anterior and posterior faces vertical. First abdominal segment (post-petiole) half as long again as the petiole, widened caudad. First abdominal segment about one-eighth wider than long.

♀. 3.7 mm. long. Ergatoid and apterous. The anterior ocellus well developed. The genal carinae more prominent than in the ♂. The median carina which extends caudad from the frontal carinae is longer than in the ♂, extending over the anterior fourth of the head. The pro-mesonotal and meso-epinotal sutures well defined, but there is no trace of the scutellum and post-scutellum which are well developed in the ♀ of *C. cooperi* Arn. The carina between the dorsum and declivity of the epinotum stronger than in the ♂, but the lateral teeth are less distinct. The puncturation, except on the second and following abdominal segments, is everywhere much stronger than in the ♂, the petiole being almost rugoso-punctate, the rugae longitudinal. Petiole one and a half times wider behind than

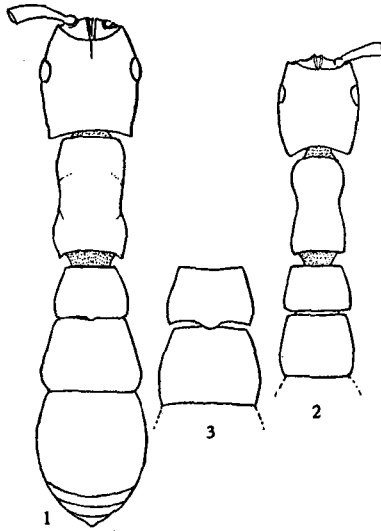


Fig. 1. *Cerapachys variolosus* ♀, × 24.

Fig. 2. *Cerapachys faurei* ♂, × 24.

Fig. 3. *Cerapachys cooperi* ♀, first two tergites × 24.

long in the middle, the postpetiole one-third wider behind than in front or long in the middle. Otherwise like the ♂.

Hunyani, Southern Rhodesia, January.

A column consisting of three ♀♀ and twenty ♂♂ was found crossing a shady footpath in a wood on granite soil, and probably comprised all the members of a colony seeking a new nest site.

Allied to *C. cooperi*, from which it differs by the smaller size, darker colour, much stronger sculpture, and narrower petiole; in the ♀ also by the apterous condition and the obsolete scutellum and postscutellum.

Paratypes, B.M. and S.A.M.

### √√ *Cerapachys faurei* n.sp. (Fig. 2)

♀. 2.7 mm. long. Pale burnt sienna brown. Pubescence yellowish, decumbent and sparse. Moderately shining. Head sparsely punctured, the interspaces for the greater part four times wider than the punctures,

the posterior middle third of the upper surfaces and the sides below the level of the eyes almost impunctate. The puncturation of the thorax is larger than that of the head, and closer, the interspaces about twice as wide as the punctures; it is almost obsolete over the middle of the dorsum. The pro-mesonotal and meso-epinotal sutures are obsolete. Petiole strongly punctured, the punctures on the petiole larger than those of the thorax and post-petiole, the interspaces as wide as the punctures. The first abdominal segment (post-petiole) is as closely punctured as the petiole, but the punctures are much less deep. Second abdominal segment finely and sparsely punctured. Head narrow, very nearly one-fifth longer than wide, widest in the middle, the posterior angles rectangular, the hind margin strongly concave. Frontal carinae close together, and not continued in a carina posteriorly. Genal carinae ending outwardly in a tooth. Clypeus short. Club of the antennae as long as the rest of the flagellum minus the length of the first joint, and very nearly twice as long as wide; the first joint of the flagellum as long as wide, the penultimate a little wider than long, the remaining joints fully twice as wide as long. Thorax narrowed over the middle third, nearly one half longer than wide at its widest point, which is at the anterior half of the epinotal area. Posterior margin of the epinotum straight, the lateral angles not dentate. Petiole one-sixth wider behind than in front, fully one-quarter wider behind than long, the anterior margin and sides straight, the hind margin almost so. Post-petiole, as long as wide in front, and about one-fifth wider behind than long.

Sordwana, Zululand. June. 3 ♂♂ sifted out of vegetable debris.

Allied to *C. cooperi* Arn. (Fig. 3), but smaller. Much less strongly punctured, with a narrower head, and differently shaped petiole.

#### Subfamily PONERINAE

#### Tribe ECTATOMMINI Emery

#### *Prionopelta descarpentriesi* Sant. (Figs. 4, 4a)

1924, *Rev. Zool. Afr.* XII, 195.  
Race *aethiopica* n. subsp.

2.2 mm. long (including the mandibles). This subspecies differs from the type by the distinctly wider petiole and post-petiole and by its greater size. Since Santschi's description of the type species is somewhat short, I append a full description of the subspecies.

Ferruginous or burnt sienna red. Pubescence short, decumbent, yellowish and sparse, almost absent from the head and pronotum. Head and prothorax dull, finely reticulate-punctate, the rest of the thorax and the abdomen shining, the dorsum of the mesonotum and epinotum, the dorsum and sides of the petiole and the two following tergites punctured, the punctures a little larger than those of the pronotum, and wider apart, the interspaces being about twice as wide as the punctures. Third to fifth tergites smooth and shining. Head nearly one-fourth longer than wide, widest in the middle, the sides convex, the hind margin feebly

concave. Mandibles tridentate, the apical tooth long and acute. Clypeus convex, gibbous in the middle, the anterior margin convex and slightly depressed. Frontal carinae short, parallel, and close together. The scapes extend back to a little beyond the middle of the head; flagellum 11-jointed, the last three joints forming an indistinct club, the apical joint nearly three times longer than wide, longer than the three preceding joints united, the tenth joint a little wider than long, the ninth as long as wide, the first longer than wide, the remaining joints wider than long. Eyes very small, composed of one facet. A smooth and narrow area, narrowed caudad, extends from the frontal carinae to a little beyond the middle of the head. Head wider than the thorax. Thoracic sutures distinct. Pronotum convex at the sides and in front, as long as wide, two

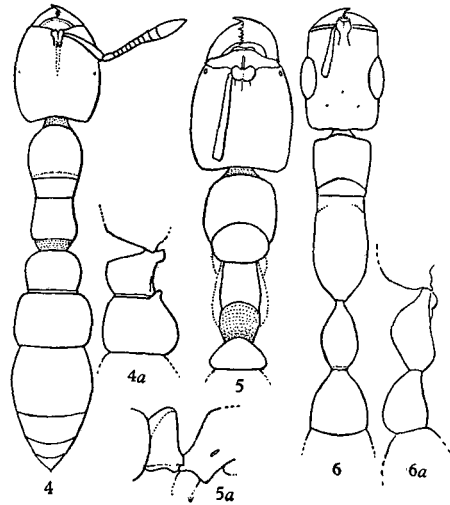


Fig. 4. *Prionopelta descarpentriesei*, race *aethiopica* ♀, × c. 25.

Fig. 4a. *Prionopelta descarpentriesei*, first and second tergite, lateral view, × c. 25.

Fig. 5. *Ponera aenigmatica* ♀, × 18.

Fig. 5a. *Ponera aenigmatica* petiole ♀, × 18.

Fig. 6. *Sima angusta* ♀, × 10.

Fig. 6a. *Sima angusta* petiole and first abdominal segment, × 10.

and a half times longer than the mesonotum, the dorsum of the epinotum slightly widened posteriorly, twice as long as the mesonotum, about as long as wide, the hind margin nearly straight, the declivity vertical and smooth. Petiole connate with the post-petiole, but their junction constricted, as is also that of the post-petiole and the second abdominal segment. Petiole higher than long below, convex transversely above, higher in front than behind, five-sevenths wider than long, the anterior face flat and subvertical. First abdominal segments (post-petiole) three-fifths wider than long, nearly one-half longer and one-third wider than the petiole, the sides very convex. Second abdominal segment about half as wide again as long. Sting exerted and very long. Posterior tibiae with only one calcar; the claws simple.

Richards Bay, Zululand. February (J. C. Faure). One ♀ obtained by sifting dead leaves and other vegetable debris.

Up to the discovery of *descarpentriasi* i.sp. in Madagascar, the distribution of the genus, comprising only a few species, was Neotropical, Indo-Malayan and Papuan. This race represents the only example of the genus so far recorded from the continent of Africa, and is also the only representative therein of the tribe *Ectatommini*.

In the type of the species the petiole is only one half wider than long, and the post-petiole one-fourth wider than long.

#### Tribe PONERINI Forel

#### ✓ *Ponera aenigmatica* n.sp. (Figs. 5, 5a)

♀. 3.7 mm. long, excluding the mandibles. Brownish black, the clypeus and apical margins of the abdominal segments fusco-ferruginous, the apical segment brownish yellow, the antennae, mandibles, outer margin of the frontal carinae, ferruginous. On the dorsal surface of the whole body there is a fine pale yellowish, decumbent and plentiful pubescence; the clypeus and hind margins of the abdominal segments with a few long, exserted hairs. Head dull, the rest of the body nitidulous. Mandibles triangular, shining, sparsely and strongly punctured near the masticatory margin, which has nine alternating large and small teeth. Head dull, finely reticulate-punctate. Pronotum and mesonotum dull, reticulate-punctate, a little less finely so than the head. Epinotum and abdomen moderately shining, very finely punctured, the interspaces as large as the punctures, the petiole smooth, also the declivity of the epinotum. Head slightly narrowed anteriorly, about one-fourth longer than wide behind, the sides feebly convex, the posterior angles rounded. Clypeus carinate in the middle, the carina not reaching the apical margin, the latter convex and with a very short median lobe. Frontal carinae short, semicircularly laminate, covering the base of the scapes. Eyes flat and very small, the facets indistinct, separated from the base of the mandibles by a distance equal to the length of the first joint of the flagellum. The scapes fall short of the hind margin of the head by about as much as their own diameter. Flagellum without a distinct club, merely gradually widened towards the apex, the first joint two and a half times longer than the second, the latter about as long as wide, the third to tenth wider than long, the apical joint fully twice as long as wide. Pronotal dorsum feebly convex, widest in front, twice as wide there as long in the middle. Pro-mesonotal suture well defined, the mesoepinotal less distinctly. Mesonotum transversely oval, seven-tenths wider than long, feebly convex. Dorsum of the epinotum horizontal, slightly widening caudad, nearly twice as long as wide at the base, merging into the slightly longer and vertical declivity in a wide curve. Petiole higher than long below, the dorsum broadly triangular with the corners rounded, convex lengthwise, very nearly twice as wide as long. First abdominal segment about one-fourth wider than long, one-third wider behind than in front. Middle tibiae with two calcaria, the posterior pectinate, the hind

tibiae with only one calcar, which is pectinate. Basitarsus of middle pair of legs with four spines on the upper side.

Stanger, Natal. February (*J. C. Faure*).

It is difficult to place this species since the middle tibiae have, unlike *Ponera s.str.*, two spurs, and the basitarsus of the same pair of legs has spines on the dorsal surface as in *Euponera*, subgenus *Trachymesopus*. However, on account of the position of the very small eyes and of the simple anterior margin of the clypeus and the unclubbed flagellum, it is best to regard it as an aberrant member of the genus *Ponera*.

Subfamily PSEUDOMYRMINAE

*Sima angusta* n.sp. (Figs. 6, 6a)

♀. 7 mm. long. Reddish ochreous, the middle of the head and the flagellum somewhat darker. Clypeus with a fringe of psammophore bristles, otherwise almost glabrous. Abdomen moderately shining, the rest of the body dull. Head and thorax very finely and very closely punctured, the puncturation strongest on the head. Mandibles striate, quadridentate. Clypeus with five indistinct teeth on the apical margin. Head parallel-sided, five-thirteenths longer than wide, the posterior angles somewhat rounded, the posterior margin almost straight. The eyes, placed a little behind the middle, occupy three-sevenths of the sides. The scapes extend back to the middle of the head; first joint of the flagellum half as long again as wide, the apical joint twice as long as wide, the other joints wider than long. Three ocelli present. Pronotum not much, or only one-fifth wider in front than behind, and one-fourth wider in front than long. The whole thorax is marginate at the sides. Mesonotum lenticular, about three times wider than long; the meta-epinotal suture faintly indicated at the sides. Epinotum, including the indistinct meta-notum, twice as long as wide, widest in the middle, the lateral margins moderately convex. First joint of the petiole barely pedunculate, twice as long as wide or as high, very convex lengthwise; the second joint nearly as long as the first, cupuliform, as wide behind as long. First abdominal segment about as long as wide.

Bulawayo. 2 ♀♀.

Allied to *S. prelli* For., and as in that species with the pronotum not much widened anteriorly. It differs from it in colour, in having the anterior margin of the clypeus dentate and in the narrower first joint of the petiole. The latter in *prelli* is only a little longer than wide. Superficially it resembles *S. natalensis* but in that species the head is much wider, and also the pronotum.

Subfamily MYRMICINAE

*Triglyphothrix hepburni* Arn.

1917, *Ann. S. Afr. Mus.* XIV, 340.

Race *mashonana* n.subsp. (Fig. 7)

♀. 2-8 mm. long, including the mandibles. This race differs from the type of the species as follows: Black, femora and tibiae brown, tarsi,

antennae and mandibles reddish yellow. Dorsum of the epinotum more oblique, the epinotal teeth longer. Basal fourth of the first abdominal segment strongly reticulate. First node of the petiole very nearly as wide as the second and nearly twice as wide as long (distinctly narrower and only four-sevenths wider than long in the type of the species, Fig. 7a).

Hunyani, Mashonaland, Southern Rhodesia.

// *Strumigenys pretoriae* n.sp. (Fig. 8)

♀. 2.4 mm. long (including the mandibles). Ochreous, the head slightly darker, the teeth of the mandibles blackish. Clypeus, head and pronotum rather sparsely covered with short, white and spoon-shaped hairs, the scapes with a row of 8 spatulate hairs. The underside of the

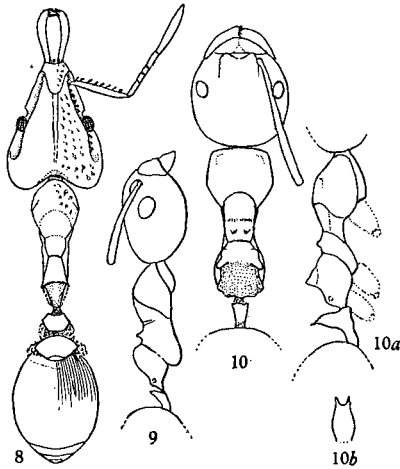


Fig. 8. *Strumigenys pretoriae* ♀, × c. 25.

Fig. 9. *Plagiolepis chirindensis* ♀, × c. 25.

Fig. 10. *Acantholepis dendrophila* ♀, × 23.

Fig. 10a. *Acantholepis dendrophila* ♀, lateral view × 23.

Fig. 10b. *Acantholepis dendrophila* ♀, petiole, viewed from behind, × 23.

joints of the petiole with spongy tissue, the lateral margins of the spinotal declivity with a lamella of the same nature. Femora and tibiae with thin spatulate hairs, the anterior tibiae with only clavate hairs. Head and thorax dull, closely reticulate-punctate, the thorax much more finely so than the head, the pronotum also with traces of longitudinal striae. The dorsal face of the first node of the petiole is dull and very finely reticulate-punctate, the second node is smooth and shining. Abdomen shining with 4 widely spaced rows of clavate hairs, the first segment closely and longitudinally striate over its basal half. Head subtriangular, and excluding the mandibles about one-third longer than wide behind, the sides behind the eyes moderately convex, the hind margin deeply and arcuately emarginate, the posterior angles widely rounded. The scrobes are wide and shallow, marginate and distinctly defined above, merging

gradually into the sides of the head below. Eyes large, convex and of many facets, plainly visible from above; in front of them there is a narrow vertical impression. Mandibles six times longer than wide, at the apex with four teeth, of which the inferior apical and the third are short and subequal, the superior apical longest and a little longer than the fourth or basal. Clypeus subtriangular, the apical margin straight. The scapes extend back a little beyond the middle of the head; the first joint of the flagellum longer than wide and as long as the second and third united, the fourth a little longer than the first, the fifth or apical joint six times longer than wide and a fifth longer than the other joints united. Pronotum twice as wide as long in the middle, the posterior half of its sides marginate. Pro-mesonotal and meso-metanotal sutures distinct but shallow, the meta-epinotal suture deep. Mesonotum semicircular, the metanotum as long as the mesonotum and a little wider in front than behind, marginate at the sides. Epinotal dorsum slightly widened caudad, as long as wide behind, the posterior angles with a tooth, acute and as long as wide at the base; the declivity steep and a little longer than the dorsum. Peduncle of the petiole half as long again as the node, the latter on its dorsal face subhexagonal, nearly twice as wide as long, its anterior margin concave. The second node of the petiole transversely oval, nearly twice as wide as long, two-thirds wider than the first, convex. There are about 30 striae on the basal half of the first tergite.

Pretoria, 2 ♀♀. January (*E. K. Hartwig*).

This species, on account of the position of the eyes belongs to the subgenus *Proscopomyrmex* Pat. and is allied to *S. faurei*, from which it differs by its larger size, larger eyes, narrower thorax, the shape of the nodes of the petiole and the presence of the spoon-shaped hairs on the head and pronotum and the much more abundant striation on the first tergite.

#### Subfamily FORMICINAE

### *Anoplolepis (Mesanoplolepis) melanaria* Arn.

1922, *Ann. S. Afr. Mus.* XIV, 509.

Race *ochraceotincta* n.subsp.

♀. 2.4 mm. long. Smaller than the type of the species, from which it differs also as follows: Brownish black, including the femora and tibiae. Posterior half of the first tergite, and the second tergite except at the sides and hind margin, suffused with brownish ochreous. Head shorter, about one-seventh longer than wide, eyes more convex. Antennae shorter, the scapes extend beyond the occipital margin by about half the length of their apical width. All the joints of the flagellum shorter, the second and third united one-fifth longer than the first (one-third longer in the type of the species).

Hillside, Bulawayo. The entrance to the nest, in sandy soil, is a small hole, not surrounded by a crater.

Paratypes, B.M., S.A.M.



**Plagiolepis (Anacantholepis) chirindensis** n.sp. (Fig. 9)

♀. 2.2–2.4 mm. long. Reddish yellow, the apical margins and sides of the tergites more or less infuscated. Legs and scapes ochreous, the flagellum brownish yellow. Head and abdomen with a very sparse microscopic, decumbent and yellowish pubescence, the abdomen also with a few longer hairs on the apical margins. Smooth and shining, without sculpture. Head very little longer than wide, very convex above and at the sides, the hind margin almost straight. Mandibles with five teeth. Clypeus very convex, nearly twice as wide as long, the apical margin convex. The scapes extend beyond the occipital margin by about one-fourth of their length. First joint of the flagellum a trifle longer than the second and third united, the second as wide as long, the third a little wider than long, the remaining joints all longer than wide. Eyes placed a little in front of the middle of the sides of the head. Pronotum very convex, nearly twice as wide as long. Mesonotum subcircular. Mesometanotal suture deep, clathrate. Metanotum with prominent stigmata, the meta-epinotal suture deep. Epinotum rather high at the base, widened caudad, wider behind than long, the dorsum merging into the declivity by a low curve. Scale of the petiole thin, the dorsal edge convex.

Chirinda Forest, Southern Rhodesia. October. Nesting under the bark of fallen and decayed trees, and sometimes also under dead leaves, the nests containing sometimes as many as 100 workers. Allied to *P. pictipes* Sant. but larger, of a different colour, with longer scapes and with the sides of the head strongly convex.

Paratypes, B.M., S.A.M.

**Acantholepis dendrophila** n.sp. (Figs. 10, 10a and 10b)

♀. 3–3.2 mm. long. Head and abdomen brown (burnt umber), thorax and the dorsal surface paler or reddish brown, antennae pale brown, the basal half of the scapes yellowish brown, the femora and tibiae pale brown and paler towards the base, the tarsi brownish ochreous. Shining. Head microscopically (48 diameters) reticulate, metapleura feebly striate lengthwise, the epinotal declivity feebly rugulose, a very sparse decumbent and short yellowish pubescence on the abdomen, and a few long, exerted black hairs on the apical margin of the segments. On the head, including the clypeus, and pro-mesonotum there are a few stiff, erect and black hairs. Mandibles quadridentate, sparsely punctured. Head, excluding the mandibles, very little, one-ninth, longer than wide, the sides and hind margin convex. Eyes placed a little behind the middle of the sides. The three ocelli are present, small but distinct. Clypeus very convex, almost subcarinate over the anterior half of the middle. Antennae long, the scapes extending beyond the occipital margin by half their length; the first joint of the flagellum three times longer than wide and nearly as long as the second and third united, the second joint one and a half times longer than wide, all the remaining joints more than twice as long as wide. Frontal triangle well defined. Frontal carinae wide apart, extending back to a little beyond the level of the anterior margin of

the eyes. Pronotum one-third wider than long, its anterior half, except at the sides, flattened, the anterior corners of the flattened area forming slight bosses or shoulders. Mesonotum wider than long, separated from the metanotum by a wide impression. The stigmata on the metanotum prominent. Dorsum of the epinotum considerably widened caudad, with a high, blunt and outwardly directed tooth on each side, convex transversely in front of the teeth, and convex between them; the declivity longer than the dorsum, widened below and with large and prominent stigmata below. Petiole as high as long, feebly convex in front, and behind, the dorsal edge emarginate and strongly spinose on each side.

Chirinda Forest, Southern Rhodesia. October. Four specimens were found walking aimlessly on the trunk of a recently felled and debarked tree. As a thorough search in the pieces of bark and in the soil all round the tree failed to disclose any sign of a nest, it is probable that they had fallen from the foliage of the surrounding trees, and suggests that the species nests in branches of trees. All other species known to me are terricolous.

By the shape of the pronotum this species belongs to the group containing *A. excisa* For., *A. depressa* Sant. and *A. palpalis* Sant. The maxillary palpi are long, but not so long as in the latter species. It differs from all three by its colour, larger size, longer scapes, smaller eyes and the much larger, higher and more divergent epinotal teeth.

Paratype, B.M.

#### Subfamily FORMICINAE

### **Componotus (Tanaemyrmex) errabundus** n.sp.

(Figs. 11, 11a-11c)

4.7 mm. long. Black. Antennae and tarsi ferruginous, the apical half of the scapes darker. Mandibles fusco-ferruginous. Head, pronotum and legs with a very short, sparse and decumbent whitish pubescence. Epinotal declivity, petiole and apical margins of the abdominal segments with a few long, erect and whitish hairs. Mandibles sexdentate, sparsely and strongly punctured, head and thorax slightly shining, microscopically reticulate-rugulose, the abdomen shining, microscopically (20 diameters) and closely transversely striolate. Head, excluding the mandibles, one-seventh longer than wide, narrowed anteriorly in the anterior third, the posterior two-thirds of the sides almost straight, the posterior corners rounded, the hind margin concave. Clypeus subcarinate, the anterior margin straight. Frontal carinae sinuate, divergent behind, ending at about the level of the middle of the eyes. Scapes short, falling short of the hind margin of the head by a distance equal to the length of the first two joints of the flagellum. Pronotum like that of *C. werthi* Forel, but wider, nearly three times wider than long. Mesonotum tumid in front, less narrowed caudad than in *C. werthi*. Dorsum of the epinotum very narrow, six times longer than wide in front, where it is widest, longer than the declivity, which is much more steep than in *C. werthi*. Scale of the petiole very convex transversely in front, flat behind, thick, two and a half times higher than thick from front to back.

♀. 4.8–5.5 mm. long. Antennae and tarsi paler than in the ♂. Head nearly one-fourth wider behind than in front, and about one-fifth longer than wide behind. The scapes extend beyond the convex hind margin of the head by one-third of their length. Eyes placed just behind the middle of the head. Clypeus distinctly carinate, the anterior margin convex or obtusely angular (straight in *werthi* ♀). Dorsum of the epinotum very oblique, three times longer than the declivity. Scale of the petiole thick, only two-fifths higher than thick from front to back, the dorsal face convex, and half as wide again as long. Otherwise like the ♂.

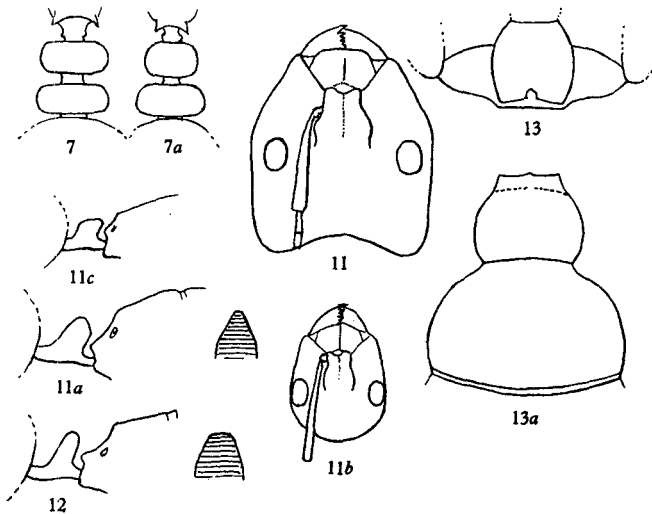


Fig. 7. *Triglyphothrix hepburni*, race *mashonana* 1st and 2nd joints of petiole, ♀, × 24.

Fig. 7a. *Triglyphothrix hepburni*, ♀, × 24.

Fig. 11. *Camponotus errabundus* ♂, head, × c. 14.

Fig. 11a. *Camponotus errabundus*, petiole, and section through middle of epinotum ♂, × c. 14.

Fig. 11b. *Camponotus errabundus*, ♀ head, × c. 14.

Fig. 11c. *Camponotus errabundus*, ♀ petiole, × c. 14.

Fig. 12. *Camponotus werthi* ♂, petiole, and section through middle of epinotum, × c. 14.

Fig. 13. *Cerceris marleyi* ♀, clypeus, × c. 14.

Fig. 13a. *Cerceris marleyi* ♀, first two tergites, × c. 14.

Hunyani, Southern Rhodesia. In savannah forest (chiefly *Brachystegia*) on granite soil. Running about in large numbers over the ground and low herbage. No nests were found either in the ground or in tree trunks.

This species is allied to *C. werthi* Forel, from which it can be distinguished by the major characters as follows:

*errabundus*

♂

The scapes fall short of the hind margin of the head by the length of the first two joints of the flagellum.

Hind margin of the head convex.

Pronotum nearly three times wider than long.

Dorsum of the epinotum very narrow, six times longer than wide at its widest.

Scale of the petiole thick, two and a half times higher than thick.

♀

Clypeus strongly carinate, the anterior margin obtusely angular.

The scapes extend beyond the hind margin of the head by one-third of their length.

Scale of the petiole very thick, about two-fifths higher than thick.

*werthi*

♂

The scapes extend beyond the hind margin of the head by the length of the first joint of the flagellum.

Hind margin of the head straight.

Pronotum twice as wide as long.

Dorsum of the epinotum about one-third longer than wide (Fig. 12).

Scale of the petiole narrow, fully three times higher than thick.

♀

Clypeus subcarinate, the anterior margin straight.

The scapes extend beyond the hind margin of the head by about half their length.

Scale of the petiole two and a half times higher than thick.

## Family SPHECIDAE

*Pison repentinum* Arn.

1920, *Ann. Transv. Mus.* xx, 104 ♀.

♂. 7 mm. long (hitherto undescribed). Apical half of the fourth, and the whole of the fifth to seventh abdominal segments fusco-ferruginous. Apical joint of all the tarsi pale brown. The smooth lobe of the clypeus a little more produced than in the ♀, its apex obtusely angular. Second joint of the flagellum one-fifth longer than the third. Otherwise like the ♀.

Zomba, Nyasaland. November. 2 ♂♂ and 1 ♀.

*Cerceris marleyi* n.sp. (Figs. 13, 13a)

♀. 10 mm. long. Black. The following parts pale yellow: basal two-thirds of the mandibles, clypeus excepting the apical and pre-apical margins, a macula, wider on the lower half than the upper, on the sides of the face, the frontal carina, a transverse macula on each side of the pronotum, the tegulae, metanotum, an apical band widely dilated at the sides on the third tergite, a narrower apical band interrupted in the middle on the fourth tergite and a brownish yellow spot on each side of the fifth tergite. The following parts are ferruginous; antennae excepting the upper side of the scapes and the first joint of the flagellum which are blackish, the first and second tergites and sternites, the third sternite, and the legs. Wings hyaline, tinged with yellow, the veins reddish brown. Clypeus dull, shallowly and not very closely punctured, the rest of the head dull, strongly reticulate-punctate. Yellow areas of the pronotum, and the metanotum, shining and sparsely punctured; scutellum shining,

coarsely punctured, the interspaces as wide as the punctures; anterior half of the mesonotum in the middle with large punctures somewhat elongated and with interspaces a little narrower than the punctures, the rest of the thorax coarsely and deeply reticulate-punctate. Triangular area of the epinotum nitidulous, strongly and obliquely rugose, longitudinally impressed in the middle. First three tergites strongly reticulate-punctate, the fourth and fifth less closely but with larger punctures, the pygidial area dull and wrinkled. Second, third and fourth sternites slightly shining, sparsely and shallowly punctured, the fifth dull, closely and finely punctured, and the sixth very finely rugulose, deeply and arcuately emarginate over the apical half. Median area of the clypeus as wide as long, the anterior margin inflected, the pre-apical margin shallowly and arcuately emarginate in the middle, its apical corners rectangular. Interocular distance on the vertex equal to the length of the first eight joints of the flagellum. The second joint of the flagellum two-thirds longer than the third. Posterior ocelli one and a half times farther from the eyes than from each other. Petiole half as wide again as long, the sides convex. Second tergite one and three-fourths wider than long. Pygidial area subelliptical, four-fifths longer than wide, the apical margin wide and straight. Hind tibiae with 6 serrations.

Umbilo, Natal. December 1 ♀ (*H. W. Bell-Marley*).

Allied to *latifrons* Bingham from which it differs, by the colour of the abdomen, the arcuate emargination of the pre-apical margin of the clypeus, the broader petiole and some other minor characters.

#### ***Philanthus rugosifrons* n.sp. (Fig. 14)**

♂. 7.5-9 mm. long. Black. The abdomen reddish ochreous, the last three or four tergites sometimes more or less pale fuscous, the anterior half or two-thirds of the first tergite, except at the sides, fuscous, the posterior margin of the fuscous area not sharply defined. The following parts are pale lemon yellow: clypeus, lower half of the face, a small spot on the temples, the pronotal collar except in the middle, tegulae, a spot below them on the mesopleura, scutellum, metanotum, the fore and middle tibiae above and the anterior half or more of the fore and middle femora below. Tarsi reddish brown, the basal joint darker. Wings hyaline, faintly tinged with brown, the veins and stigma brown. Clypeus with a fine exerted pale yellow pilosity, the frons with short brownish pilosity, the temples and sides of epinotum with a sparse whitish pilosity, the mesonotum with very short, erect and black hairs. Yellow areas of the head and thorax shining, sparsely and finely punctured, the rest of the head and thorax dull. Face from the anterior ocellus to the hind margin of the clypeus, finely and obliquely rugose lengthwise, and reticulate-punctate between the rugae; behind the ocellar area the puncturation is a little larger and less close, the interspaces about half as wide as the punctures. Temples shallowly and sparsely punctured. Mesonotum coarsely reticulate-punctate, except the posterior half of the middle third, where the punctures are larger, with interspaces about half as wide as the punctures. Metapleura and the dorsum of the epinotum

reticulate-punctate, the latter without a defined triangular area, but with a distinct and narrow median groove which is transversely rugose. Sides of the epinotum rugulose-punctate. Tergites microscopically rugulose, the first with a very sparse, fine and shallow puncturation. Seventh tergite sparsely and coarsely punctured near the base, trapezoidal, the apical margin straight. Interocular distance across the clypeus nearly two and a half times greater than on the vertex, where it is equal to the length of the first three joints of the flagellum. Posterior ocelli as far from each other as from the eyes, separated from the latter by a distance equal to their own diameter. Second joint of the flagellum twice as long as wide at the apex and twice as long as the third; the latter and the fourth and the apical joint as long as wide, the rest a little wider than long. Anterior margin of the clypeus feebly convex; the moustache

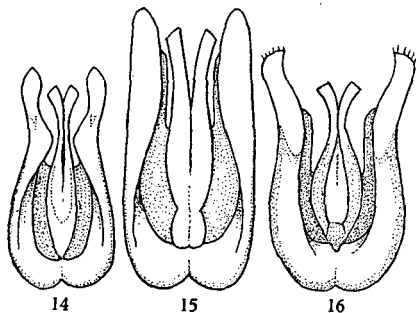


Fig. 14. *Philanthus rugosifrons*.

Fig. 15. *Philanthus loefflingi*.

Fig. 16. *Philanthus flavipes*.

black. Dorsum of the epinotum nearly three times wider at the base than long.

Abercorn, Northern Rhodesia. July. 15 ♂♂ (*H. J. Bredo*).

Allied to *P. loefflingi*, from which it is easily distinguished by the longitudinal rugosity of the face, and the absence of the tridentate yellow macula between the antennae, the much smaller interocular distance on the vertex, the relatively stronger sculpture of the mesonotum and the genitalia. In *loefflingi* (Fig. 15) the outer paramera are much wider and gradually attenuated apically, whereas in this species they are more abruptly so and curved.

Paratype, B.M.

#### ***Philanthus flavipes* n.sp. (Fig. 16)**

♂. 9.5 mm. long. Black. Abdomen ochreous, the last four segments slightly smoky yellow. The following parts whitish yellow: mandibles, clypeus, a streak on the underside of the scapes, lower two-thirds of the face, of which the median portion between the antennal sockets is bluntly tridentate, a long streak adjacent to the eyes on the temples, a small transverse macula on each side of the pronotal collar, a more or less

lozenge-shaped macula on the mesopleura below the tegulae, a very small spot on the front of the tegulae and two small spots on the middle of the metanotum. All the tibiae brown yellow, the underside of the anterior femora dirty white, the tarsi reddish yellow. Wings pale fuscous, the veins and pterostigma brown. Moustache yellow, face with a short, sparse and whitish pilosity, the rest of the body glabrous. Clypeus and yellow areas of the head smooth, shining and very sparsely, finely punctured. Face up to the anterior ocellus dull, strongly reticulate-punctate. Vertex, occiput and temples shining, finely and very sparsely punctured. Pronotum shining, feebly punctured. Anterior third of the mesonotum closely punctured, almost reticulate-punctate, the posterior third shining, irregularly, sparsely and coarsely punctured, the interspaces for the greater part two to three times wider than the punctures. Episternum and epimerum of the mesopleura smooth and shining, the episternum shallowly and not closely punctured. Scutellum and metanotum smooth and shining, the former with a longitudinal median impression. Sides of the epinotum shining, finely and transversely rugulose, the dorsum and declivity nitidulous, impunctate, microscopically rugulose. The dorsum without a defined triangular area, but with a median and transversely clathrate groove which is widest anteriorly. Abdomen shining, and without sculpture. Interocular distance across the clypeus two-thirds greater than across the vertex, where it is equal to the length of the first three joints of the flagellum plus two-thirds of the fourth. Second joint of the flagellum not quite twice as long as wide, one-fourth longer than the third. The flagellum is fairly slender. Posterior ocelli as far from the eyes as from each other. Dorsum of epinotum as long as the scutellum and metanotum united. First tergite one-third wider at the apex than long.

Abercorn, Northern Rhodesia. July. 1 ♂ (*H. J. Bredo*).

Allied to *P. stygius* Gerst, race *atronitens* Arn. from which it may be distinguished by the colour of the legs, the wider vertex, the sculpture of the mesonotum, and the impunctate epinotal dorsum.

### **Tachysphex bituberculatus** Arn.

1923, *Ann. Transv. Mus.* IX, 162.

The specific name for this species should be altered to *bipustulosus* since it is preoccupied by *T. bituberculatus* Cam., a species from Assam (1905, *Ann. Mag. nat. Hist.* (7), XV, 218, ♀).