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NEW SPECIES OF AFRICAN HYMENOPTERA NO. 13

By G. ARNOLD

The types of the new species described herein are in the National Museum of Southern Rhodesia.

The least magnification required to resolve the puncturation, using a Leitz binocular microscope, is given in parentheses (...diameters).

FORMICIDAE

Subfamily MYRMICINAE

***Myrmicaria faurei rhodesiae* n.var.**

M. faurei Arn., 1947, *Occ. Pap. Nat. Mus. S. Rhod.* XIII, 134.

♀. 6.8–8.8 mm. long. This is a montane ant, like the type of the species from which it differs as follows.

The median carina of the clypeus is feebler, and the lateral carinae or rugae are reduced; in the smallest specimens the median carina is absent and there are only traces of the lateral ones. The rugose sculpture of the pronotum and mesonotum is weaker, on the pronotal dorsum reduced to seven thin and widely spaced rugae. The epinotal teeth are divergent, horizontal, not curved downwards as in the typical species, and much shorter. In the latter they are about 1 mm. long and nearly as long as the first three joints of the flagellum, whereas in this variety they are not more than 0.6 mm. long and not quite so long as the first two joints. The peduncle of the first node of the petiole is longer, the node measured from the side being only half as long as the peduncle.

Vumba Mountains, Southern Rhodesia, 5000 ft. In a large nest in grassy ground.

***Monomorium distinctum leviceps* n.var.**

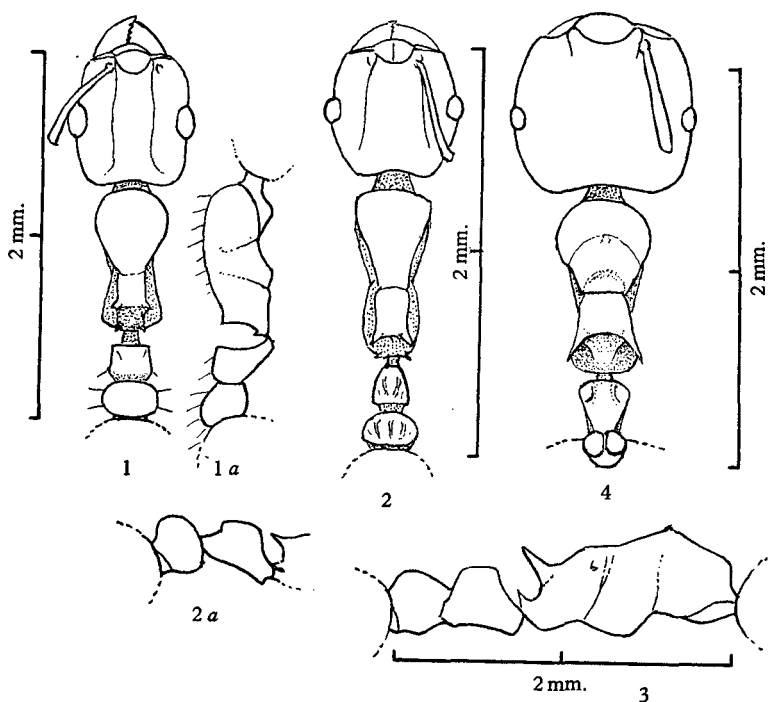
M. distinctum Arnold, 1944, *Occ. Pap. Nat. Mus. S. Rhod.* XI, 11.

♀. 2.7 mm. long. This variety differs from the type of the species in the much sparser and smaller puncturation of the head. The punctures are about half as large as those of the type, almost absent on the middle longitudinal third, and at the sides separated by spaces about five times wider than the punctures. The hind margin of the head is clearly more deeply concave. The head is as wide behind as in front.

Sundays River, East Cape Province, June 1955 (*N. Myers*).

***Tetramorium bevisi* n.sp. (Figs. 1, 1a)**

♀. 2.8 mm. long. Black. Mandibles, antennae and legs brownish ochreous. The oblique pubescence on the antennae and legs, and the erect stiff hairs on the sides of the head and of the pro- and mesonotum and of the abdomen are also of that colour. Head closely, very finely and evenly longitudinally rugose between the frontal carinae, which extend as far as the hind margin; below them the sides are less evenly and more coarsely rugose. Mandibles with five teeth, longitudinally striate. Pro-mesonotum closely and longitudinally rugose, the sides of the pronotum very finely reticulate rugose, the sides of the mesonotum

Figs. 1, 1a. *Tetramorium bevisi*, ♀.Fig. 2. *Tetramorium hortorum*, ♀.Fig. 2a. *Tetramorium hortorum*, petiole.Fig. 3. *Tetramorium guineense* ssp. *gizensis*, ♀.Fig. 4. *Crematogaster rufigena*, ♀.

and epinotum more strongly so. Basal third of the epinotal dorsum rugose, the posterior two-thirds and the upper half of the declivity reticulate. Pro-mesonotal suture obsolete, the meso-epinotal suture very indistinct. Nodes of the petiole smooth above, finely reticulate at the sides. Abdomen smooth and shining. Head, excluding the mandibles, one-eighth longer than wide, as wide in front as behind, the sides feebly convex, the hind margin shallowly concave. Clypeus convex, with five or six longitudinal rugae, the anterior margin straight. Eyes situated at

the middle of the sides. The scapes extend back beyond the eyes by about the length of the eye. First joint of the flagellum nearly as long as the second to fourth united, the apical joint a little longer than the two preceding joints united. Shoulders of the pronotum very convex. Dorsum of the epinotum parallel-sided, twice as long as wide, the teeth on the hind margin triangular, hardly as long as wide at the base and not longer than the episternal teeth. First node of the petiole longer than its peduncle, the dorsal face about as long as wide in front, feebly convex transversely, slightly constricted behind, its anterior margin straight, the anterior face flat and vertical. Second node transversely oval, two-sevenths wider than the first.

♀. 3.3 mm. long. Pronotal dorsum very short, transversely rugose, the metanotum and scutellum strongly and longitudinally rugose, the sides of the pronotum, the mesonotum and mesopleura closely striate. Dorsal face of the first node a little wider than long, the second node nearly twice as wide as long. Dealated. Otherwise like the ♀.

♂. 3.7 mm. long. Mandibles, antennae, femora and tibiae dark brown, the rest of the body black. Wings pale yellowish, slightly smoky in the apical half. Head, including the eyes, as wide as long, dull, reticulate-rugose, and striate between the frontal carinae. Clypeus with a strong median carina. The eyes occupy one-third of the sides and are large and convex. Pronotum short, not visible from above; mesonotum very convex, shining in front, with a shallow longitudinal furrow in the middle extending over the anterior half, the posterior half and the scutellum dull, closely striate lengthwise, the Mayrian furrows indistinct. Dorsum of the epinotum dull and reticulate, narrower behind than at the base, the posterior corners elevated but not forming distinct teeth. Nodes of the petiole finely reticulate, the first node transversely oval, the second half as wide again as the first. The scapes extend back as far as the posterior ocelli, the second joint of the flagellum nearly as long as the scape.

Molepi stream, Basutoland, 40 miles east of Maseru, 8400 ft. Remotely related to *T. intextum* Santschi and *T. pusillum* Emery and its varieties, from all of which it differs in colour, sculpture and shape of the first node. Paratype in the British Museum.

***Tetramorium hortorum* n.sp. (Figs. 2, 2a)**

♀. 2.8–3 mm. long. Head, thorax, petiole and extreme base of the first abdominal segment burnt sienna red, the antennae, tibiae and tarsi of the same colour but a little paler, the femora and abdomen, excepting the base of the first segment, dark brown. Mandibles closely striate and with five teeth. Clypeus with a sharp median longitudinal carina. Vertex between the frontal carinae finely and evenly rugose, the interspaces not wider than the rugae, sides of the head reticulate (40 diameters) and with irregular rugae superimposed on the anterior half. Sides of the thorax reticulate-punctate and dull. Pro-mesonotum nitidulous, with a fundamental reticulation (40 diameters) on which is

"Molepi"

superimposed a longitudinal rugosity, coarse on the pronotum and thinning posteriorly to the hind margin of the mesonotum. Dorsum of the epinotum dull, sparsely and finely rugose transversely. Nodes of the petiole dull, microscopically reticulate-punctate, the dorsal face of both nodes with a few shallow and longitudinal grooves. Base of the abdomen dull and punctulate (75 diameters), the rest of the abdomen smooth and shining. Head widest in the middle, about one-eighth longer than wide, the sides distinctly convex, the eyes situated at their middle. The frontal carinae are thin and do not quite reach the posterior margin; antennal scrobes are absent. The scapes extend back to the occipital margin. Apical joint of the flagellum twice as long as wide, and as long as the two preceding joints united. Occipital margin of the head moderately concave. Pronotum marginate in front and at the sides, widest in front and a little longer than wide, the meso-epinotal suture feeble and with a curved transverse ridge in front. Dorsum of the epinotum two-fifths longer than wide, very little dilated behind, the epinotal teeth acute, longer than wide at the base, a little longer than half the distance between their bases, and as long as the episternal teeth. First node of the petiole as long as high and nearly twice as long as its peduncle, the dorsal face semi-elliptical. Second node transversely oval, fully half as wide again as the first. The whole body has a sparse, erect and white pilosity.

Victoria Falls, Southern Rhodesia. On the tennis lawn of the hotel garden; the entrance to the nest with a low crater. Allied to *T. bequaerti* Santschi and its races, from which it differs by the darker colour, the stronger sculpture of the head and promesonotum, the much finer rugosity of the epinotal dorsum and the anteriorly wider first node of the petiole. In his description of *T. bequaerti* Santschi says that the species is closely allied to *T. blochmanni*, a subspecies of *T. sericeiventris* Emery, which I think is erroneous. In that species and its numerous varieties the first node of the petiole in its dorsal aspect is longer and subovate, and is pitted and without shallow grooves, and the sculpture of the head is clearly different.

***Tetramorium guineense gazensis* n.ssp. (Fig. 3)**

T. guineense Fab., 1793, *Ent. Syst.* II, 357.

♀. 4.3 mm. long. Head, thorax and petiole reddish brown, the sides of the head paler than the vertex, first abdominal segment blackish brown, the remaining segments pale brown. Mandibles, antennae and legs brownish ochreous. Pubescence, pilosity and sculpture as in the var. *striatum* Arn. The apical joint of the flagellum is longer than in the type of the species, being two and two-fifths longer than wide, whereas in the type it is barely twice as long as wide. In the race *cristatum* Stitz, var. *striatum* Arn. it is two and one-fifth longer than wide. The transverse carina between the pronotum and mesonotum is much higher than in *striatum* and the dorsal face of the two parts forms a much less obtuse angle than in that variety. This subspecies is much darker in colour than

other subspecies and varieties of this species, and excepting *striatum*, is larger.

Melsetter, Southern Rhodesia, 5000 ft. Nesting in a sandy path. Paratype in the British Museum.

***Tetramorium akermani myersi* n.var.**

T. akermani Arn., 1926, *Ann. S. Afr. Mus.* XXIII, pt. 2, 265, fig. 73.

♀. 2.5 mm. long. Blackish brown or almost black. Antennae and legs dark brown, the tarsi somewhat paler. In addition to the colour, this variety differs from the type of the species in the sculpture of the head and thorax, the longitudinal rugae being finer and more numerous, and connected by transverse anastomoses. The sides of the second node of the petiole are obtusely angular, not rounded. The pilosity on the petiole and abdomen differs considerably from that of the type species, it is white, very fine and twice as long, and blunt at the apex.

Sundays River Valley, Cape Province, October 1955, type; Fish River Valley, Cape Province, June 1955 (*N. J. Myers*).

The forms *frigidum* and *drakensbergensis*, which I placed under *akermani* (pp. 266 and 267 loc. cit. supra) should be transferred as varieties to *T. titus* Forel.

***Crematogaster rufigena* n.sp. (Fig. 4)**

♀. 3.5-4 mm. long. Mandibles, clypeus, anterior half of the sides of the head, and sometimes the pronotum, brownish red, the rest of the head and thorax varying from dark brown to blackish brown. Abdomen brownish black, the first segment sometimes with a reddish tinge, the apical margins of the segments slightly paler. Legs blackish brown. Anterior half of the head, including the clypeus, closely and microscopically striate lengthwise (50 diameters), the posterior half slightly shining, finely and very sparsely punctured. Clypeus without a median carina. Mandibles strongly striate, with five teeth. Thorax dull, closely and longitudinally rugulose, the declivity of the epinotum smooth and shining. On the head and abdomen there is a short, sparse, decumbent and yellowish pubescence. Head very convex, widest in the middle, slightly (one-twelfth) wider than long, the frontal carinae short, not longer than the first two joints of the flagellum. The eyes are situated at the middle of the sides. The scapes extend back beyond the eyes by as much as the length of the eye. Hind margin of the head concave. Pronotum twice as wide as long in the middle, the dorsal face flat and with the anterior and lateral margins rounded; mesonotum a little wider in front than long, its posterior declivity almost semicircular and concave transversely. Promesonotal suture clearly defined, the meso-epinotal suture deep. Dorsum of the epinotum one-third wider behind than in front, the rugae not reaching the hind margin, the teeth as long as wide at the base, divergent and directed slightly upwards, half as long as the distance between their bases, the declivity a little longer than the dorsum. First node of the

petiole about as long as wide in front, the anterior corners convex and swollen; second node shorter and narrower than the first and with a deep median groove.

Chirinda Forest, Southern Rhodesia. A very populous nest under the bark of a rotten and fallen tree. The smaller specimens, 3.5–3.7 mm. long, were taken from an incipient nest in the same locality. Distantly related to *C. impressa* Emery, from which it differs by the colour, the much more convex head and the almost complete absence of a tubercle in the anterior margin of the mesonotum.

Subfamily CAMPONOTINAE

Tribe PLAGIOLEPIDINI

Anoplolepis (Mesanoplolepis) litoralis n.sp.

♂. 3.3 mm. long. Brownish black and dull, mandibles reddish yellow, the scapes ochreous, the flagellum brown with the three basal joints paler. Anterior tibiae and tarsi ochreous, all the femora and the middle and hind tibiae dark brown, the middle and hind tarsi brownish yellow. On the whole body there is a microscopic pruinose pubescence (50 diameters), which give it a greyish colour at certain angles.

This species is closely related to *A. melanaria* Arn. from which it differs as follows. The whole body is dull and pruinose, whereas in *melanaria* it is glabrous and shining. The clypeus is much less convex and is gibbous in the middle of the basal half. The sides of the head are less convex, the eyes smaller and more oval, and the scapes are shorter, extending back by not more than their apical width beyond the hind margin of the head. In *melanaria* they reach the middle of the pronotum. The dorsum of the epinotum is more convex and is twice as long as the declivity, whereas in *melanaria* it is only as long as the declivity.

Birchenough Bridge, Southern Rhodesia. The nest in alluvial sand of the Sabi River. Paratypes in the British Museum.

Plagiolepis montivaga n.sp. (Fig. 5)

♂. 1.9 mm. Mandibles ferruginous. Head brownish black, the antennae dark brown, the first two or three joints sometimes paler, the thorax reddish ochreous, the epinotum reddish brown. Abdomen black. Legs ochreous. A few exserted yellow hairs on the clypeus and apical margin of the abdominal segments. Head with a sparse, decumbent and microscopic pubescence. The whole body smooth and very shining, and impunctate. Mandibles with five teeth. The scapes extend back as far as the occipital margin. First joint of the flagellum as long as the second and third united, nearly twice as long as wide at the apex. Head, excluding the mandibles, very slightly longer than wide, widest a little behind the middle. Clypeus very convex, the anterior margin straight. Eyes large, situated in front of the middle of the sides. Pronotum as wide as long, and as long as the mesonotum, metanotum and half of the epinotum united. Mesonotum twice as wide as long, one-fourth longer than

the metanotum. Dorsum of the epinotum very convex transversely and a little longer than the declivity. All the thoracic sutures well defined. Scale of the petiole a little longer than wide, the upper margin convex transversely and thick.

Molepi stream, Basutoland, 8400 ft. (*L. Bevis*). Related to *P. punctum* Forel, from which it differs by the colour, the less convex sides of the head, the deeper meta-epinotal suture, the more convex epinotal dorsum and the wider scale of the petiole.

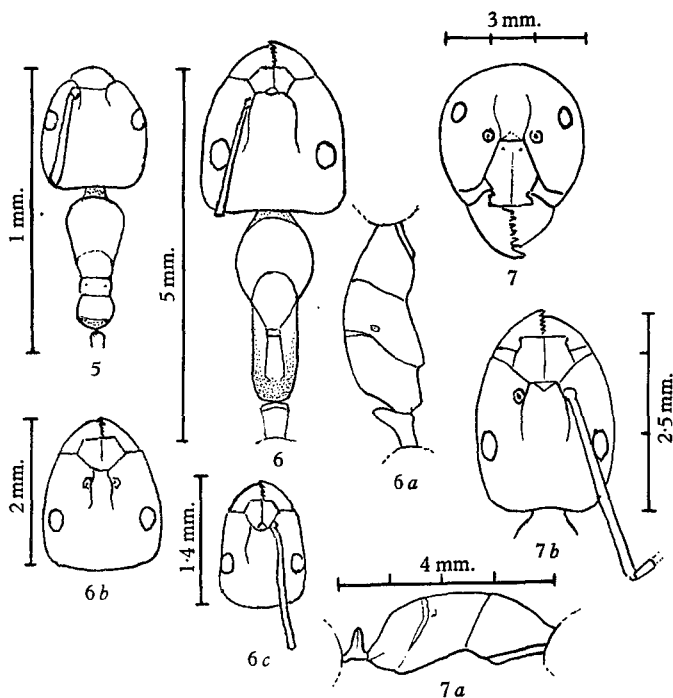


Fig. 5. *Plagiolepis montivaga*, ♀.

Figs. 6, 6a. *Camponotus basuto*, ♂.

Fig. 6b. *Camponotus basuto*, ♀ media.

Fig. 6c. *Camponotus basuto*, ♀ minor.

Figs. 7, 7a. *Camponotus buttikeri*.

Fig. 7b. *Camponotus buttikeri*, ♀ media.

Fig. 7c. *Camponotus buttikeri*, ♀ minor.

Tribe CAMPONOTINI

***Camponotus (Tanaemyrmex) basuto* n.sp. (Figs. 6, 6a-c)**

♂. 8 mm. long. Brownish black, the cheeks and anterior third of the clypeus rufescent. The apical margin of the abdominal segments widely testaceous. Mandibles fusco-ferruginous. Antennae pale brownish red. Legs dark ochreous. Clypeus and apical margin of the abdominal segments with a few stiff, short and yellowish hairs. Mandibles strongly striate and with a large and sparse puncturation. Anterior half of the sides of the head and the mesonotum with a very sparse, small, shallow and elongate puncturation. The space between the frontal carinae with a

thin and median impressed line and a few larger punctures on each side of it. Thorax and abdomen impunctate, smooth and shining. The head is also shining. Head, excluding the mandibles, nearly two-thirds wider behind than in front ($5:3\frac{1}{2}$), as long as wide behind, the sides feebly convex. Clypeus lobed, a trifle wider than long, with an acute median carina, the anterior margin straight and indistinctly denticulate. The eyes, situated behind the middle, are separated from the posterior corners of the head by a distance equal to their own length. The scapes extend backwards beyond the hind margin by a distance equal to the length of the first joint of the flagellum. Pronotum one and a half times wider than long, the mesonotum as long as the pronotum, not quite as wide in front as long, three times wider in front than at the mesometanotal suture. Epinotal dorsum nearly parallel-sided, slightly widened caudad, twice as long as wide, merging by a wide arc into the declivity. Scale of the petiole higher than long below, the anterior face convex, the posterior face flat, the dorsal edge fairly thick and convex transversely. Thorax highest at the epinotum. H.L. (height:length) $3:7$.

♀ *media*. 7.3 mm. long. Antennae paler than in the ♂, reddish ochreous. Frontal carinae less divergent than in the ♂. Head less narrowed anteriorly, being only one-third wider behind than in front. Hind margin of the head straight. Dorsal edge of the scale of the petiole not evenly convex transversely as in the ♂, but slightly acuminate in the middle. Otherwise like the ♂.

♀ *minor*. 5.2–5.5 mm. long. Head dark brown, thorax brown. Head one-fourth wider behind than in front, the sides almost straight. The scape extends back beyond the hind margin of the head by half its length. Mesonotum three times wider in front than behind. Dorsum of the epinotum a little more widened caudad than in the ♂, being one and a half times wider at the hind margin than in front, and much longer than in the ♀ *media* and being six times longer than wide in front.

Molepi stream, Basutoland, 8400 ft. Paratype ♀ *minor* in the British Museum. Related to *C. cleobulus* Santschi, from which it may be distinguished by the colour and by the head which is much less narrowed in front and by the narrower and shorter epinotal dorsum.

***Camponotus (Tanaemyrmex) buttikeri* n.sp. (Figs. 7, 7a, b)**

♂. 13 mm. long. Black. Flagellum ferruginous, tarsi flavo-ferruginous. Apical margin of the clypeus and of the abdominal segments with a row of yellowish, exserted hairs. Clypeus and pronotum with a very fine, decumbent, and yellowish pubescence, the legs with similar pubescence but more abundant. Head and thorax dull, closely and microscopically reticulate (30 diameters), the abdomen shining. Mandibles shining, sparsely and coarsely punctured, with seven teeth. Head widest a little behind the eyes, two-thirds wider there than in front, and as long as wide. Clypeus with a median carina, and one and a half times longer than wide in front. The eyes are situated a little behind the middle of the sides. The scapes extend as far as the posterior angles, the hind

margin of the head concave. L.H. (length:height), nearly 5:2. Scale of the petiole as high as long below, convex above from side to side, the edge trenchant, the anterior face convex, the posterior flat. Femora and tibiae slightly compressed.

♀ *media*. 9 mm. long. Mandibles fusco-ferruginous. Head barely wider behind than in front, slightly more than one-fourth longer than wide, the sides moderately convex. The scapes extend by one-half of their length beyond the hind margin. The scale of the petiole is more convex in front than in the ♀.

♀ *minor*. 7.5 mm. long. Thorax three and a half times longer than high. Otherwise like the ♀ *media*.

Nelspruit, Transvaal, March 1953 (*W. Buttiker*).

Related to *C. natalensis* Smith, but distinguished in all castes by its smaller size, by the absence of long fulvous hairs on the abdomen, by the excision behind the anterior corners of the clypeus, and the much thinner scale of the petiole. In addition, the head in the ♀ *minor* is not subconical posteriorly as it is in that caste of *natalensis*. Paratypes in the South African Museum and British Museum.

Family SPHECIDAE

Subfamily PISONIINAE

***Pison obesum* n.sp. (Figs. 8, 8a)**

♀. 9.5 mm. long. Black. Wings hyaline, the veins black. Lower half of the face with a dense silvery pubescence. Pronotal collar, sides of the thorax and underside of the femora with decumbent silvery pubescence, less dense than that of the face. Sides of the epinotum with short, erect and white pilosity. Tibiae and the depressed apical margin of the first four tergites with a very fine, almost microscopic, decumbent and silvery pubescence. Vertex dull, finely and closely punctured. Mesonotum, mesopleura and metapleura almost dull, closely and finely punctured (40 diameters), the interspace for the greater part twice as wide as the punctured. Scutellum and metanotum slightly shining, a little more strongly punctured than the mesonotum. Dorsum of the epinotum nitidulous, with a median and shallow groove which is longitudinally carinae, and with a short fork cephalad; it is closely and transversely rugose, the rugae extending obliquely over the lateral areas and becoming progressively thinner caudad. The dorsum is twice as wide at the base as long, and as long as the transversely and closely striated declivity, which has a median longitudinal sulcus. Abdomen slightly shining, closely and microscopically punctured (40 diameters). Clypeus four-fifths wider than long, the apical margin very convex over the middle third; its lateral angles project a little over the inner margin of the eyes. The face is swollen by the level of the ocular sinuses, forming a thick, transverse and crescentic torus. Behind it the vertex is shallowly depressed and has a median impressed line reaching to the anterior

ocellus. The posterior ocelli are as far from the eyes as from each other. Interocular distance on the vertex equal to the length of the first three joints of the flagellum and to two-thirds of the inferior interocular distance. First joint of the flagellum as long as wide, the second joint a trifle more than twice as long as wide and two-ninths longer than the third joint. Mesonotum two-fifths wider than long. First tergite two and a half times wider than long on the dorsal face, the second tergite fully twice as wide as long. Second cubital cell petiolate, the petiole only a little shorter than the second abscissa of the radius. The recurrent veins meet the angles of the second cubital cell. Nervulus of the sub-medial cell prefurcal.

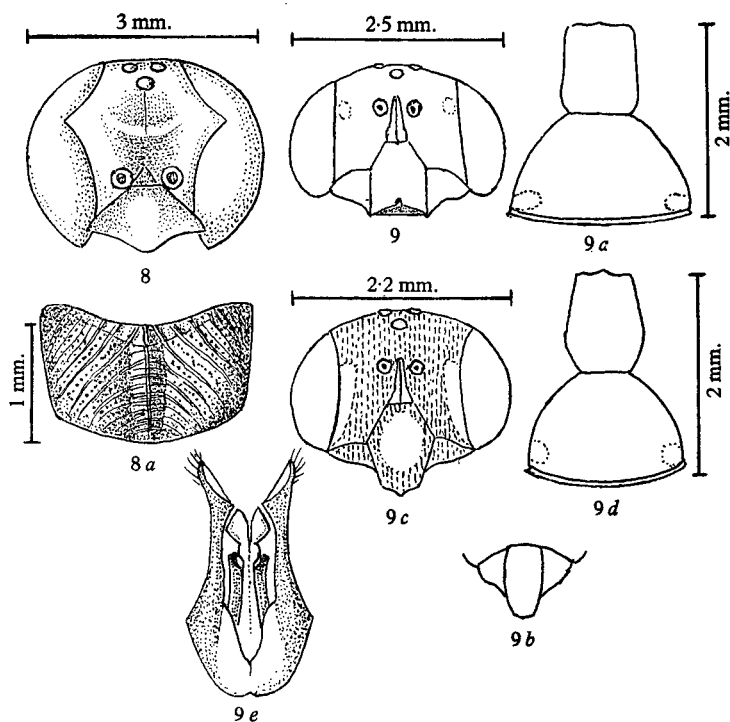


Fig. 8. *Pison obesum* head, ♀.

Fig. 8a. *Pison obesum* epinotum.

Fig. 9. *Cerceris molesta*, head, ♀.

Fig. 9a. *Cerceris molesta*, first two tergites, ♀.

Fig. 9b. *Cerceris molesta*, epinotum, ♀.

Fig. 9c. *Cerceris molesta*, head, ♂.

Fig. 9d. *Cerceris molesta*, first two tergites, ♂.

Fig. 9e. *Cerceris molesta*, ♂, genitalia, $\times c. 32$.

Cashel, Southern Rhodesia, November. A stoutly built insect larger than the other African species. Related to *P. transvaalensis* Cameron but considerably larger and distinguished from it by the shape of the clypeus, the greater distance of the posterior ocelli from the eyes, the longer second joint of the flagellum, the stronger rugosity of the epinotal dorsum and the finer puncturation of the thorax.

Subfamily CERCERINAE

Cerceris molesta n.sp. (Figs. 9, 9a-e)

♀. 8-9.5 mm. long. Black. Basal fourth of the mandibles, frontal carina and a triangular spot on each side of the lateral margins of the face at the level of the antennal sockets, pale lemon yellow. In some specimens the apex of the mandibles is ferruginous. A small streak on each corner of the apical margin of the second tergite, a continuous apical band dilated laterad on the third tergite, and a thin band not reaching the sides on the apical margin of the fifth tergite, sometimes reduced to two spots, pale lemon yellow. Anterior and middle tarsi and the tibiae on the underside pale ochreous, the upperside of the anterior and middle tibiae fusco-ferruginous, the middle tibiae with a yellow spot on the upper side at the apex; the hind femora and tibiae reddish black, the basal two-thirds of the hind metatarsi dull ochreous, the rest of the hind tarsi brown. Scape and first joint of the flagellum black, the rest of the flagellum reddish ochreous below, fusco-ferruginous above. Tegulae black. Clypeus with a sparse white pubescence, the thorax with longer, erect whitish pubescence, more abundant on the pleura and epinotum than elsewhere. Clypeus with a fine and close puncturation on which are superimposed a few larger punctures. Metanotum sparsely and shallowly punctured, the metapleura transversely rugose, the triangular area of the epinotum obliquely rugose, the rest of the thorax and the head with a deep, large and close puncturation, or reticulate punctate, the punctures on the head smaller than on the mesonotum. The first four tergites punctured like the thorax, the fifth less closely and more shallowly. Pygidial area nearly twice as long as wide, the sides feebly convex, the basal half coarsely punctured, the apical half with a few, indistinct rugae, the apical margin straight. The sides of the sixth tergite finely and closely punctured, the second sternite subcarinate in the middle coarsely punctured at the sides, the third and fourth with a transverse row of large punctures in the middle, the fifth and sixth finely punctured. Clypeus subhexagonal, one-ninth longer than wide, the apical margin inflected, the pre-apical margin very close to the apical and arcuate, with, in some specimens, a small arcuate excision in the middle. Interocular distance on the vertex equal to the length of the first seven joints of the flagellum. Posterior ocelli one and a half times farther from the eyes than from each other. Petiole one-fourth longer than wide, widest behind the middle. Second tergite as long as the first, fully three-fifths wider than long, and a little more than two and a half times wider at the apex than at the base. Posterior tibiae with five or six spiniferous serrations.

♂. 8 mm. long. Median area of the clypeus, excepting the margins, the frontal carina and a low triangle with the apex ventrad on each side of the face, pale lemon yellow. The posterior tibiae on the upperside whitish yellow, the other yellow markings on the legs as in the ♀, but paler. The transverse apical band on the fifth tergite thicker than in the ♀.

Otherwise like the ♀ in colour, pubescence and sculpture, excepting the pygidial area which is suboval, sparsely and very coarsely punctured all over.

Abercorn, Northern Rhodesia, June–August, 19 ♀♀, 2 ♂♂ (*H. f. Bredo*). Paratype of ♀ in British Museum. Closely related to *C. monticola* Arn., from which it differs in the ♀ by the narrower head which is barely wider than the thorax, the narrower median area of the clypeus, the closer and finer puncturation of the thorax, and the narrower petiole. (Compare Figs. 9–9e with Figs. 8 and 8a, *Ann. Trans. Mus.* 1931, XIV, 161.)

***Cerceris bredoi* n.sp. (Figs. 10, 10a–c)**

♀. 9.5 mm. long. Black. Clypeus, frontal carina, sides of the face up to the level of the antennal sockets and attenuated above, underside of the scapes, a very small spot on each side of the pronotal collar, a small spot on the outer margin of the tegulae, a very narrow apical band on the third tergite, the sides of the third sternite and a narrow apical band on the fifth tergite, whitish yellow. Pygidium ferruginous. Flagellum ochreous on the underside. Anterior and middle tibiae and tarsi pale yellow, the tibiae with a black streak on the upperside. Posterior tibiae black, with a thin yellow streak above, the posterior tarsi pale yellow. Wings hyaline, the apex of the forewing slightly fuscous, the veins black. Clypeus and yellow areas of the face with a dense, decumbent and silvery pubescence. Thorax with a short, erect and whitish pubescence. Vertex and temples dull, reticulate punctate, the punctures about one-third as wide as the anterior ocellus. Thorax dull. Metanotum finely and sparsely punctured, the metapleura closely and transversely rugose, the triangular area of the epinotum microscopically punctured (40 diameters), with a clathrate median groove, obliquely rugose in the basal angles. The rest of the thorax is strongly punctured, the punctures fully twice as large as those of the head, the interspaces on the mesonotum and scutellum twice as wide as the punctures. Tergites 1–5 as strongly punctured as the thorax, but more closely. Sixth tergite coarsely punctured at the sides, the pygidial area elliptical, twice as long as wide, closely and transversely rugose. Sternites shining, very sparsely punctured. Mandibles falcate, with two broad and low teeth between the middle and the base. Median area of the clypeus nearly one-third longer than wide, the anterior margin straight. Posterior ocelli half as far again from the eyes as from each other. Inner orbits of the eyes moderately divergent above and below. Second joint of the flagellum very little longer than the third. Dorsum of the pronotum as long in the middle as the third joint of the flagellum. Petiole a little wider in front than behind, a little longer than wide in the middle, the sides feebly convex. Second tergite two-fifths longer than the petiole and two-sevenths wider than long. Hind tibiae with six serrations.

♂. 8.5 mm. long. Middle third of the lower half of the face black, the sides whitish yellow. Pronotum without yellow spots. Seventh tergite black at the sides, the pygidial area ferruginous. Otherwise like the ♀ in

colour. Punctuation a little larger than in the ♀. Median area of the clypeus projecting a little beyond the lateral sclerites to form a short rectangular lobe, the anterior margin of which is straight. Petiole one-fourth longer than wide and as long as the second tergite. Pygidial area about one-fourth longer than wide, the sides and the apical margin very feebly convex, sparsely and very coarsely punctured.

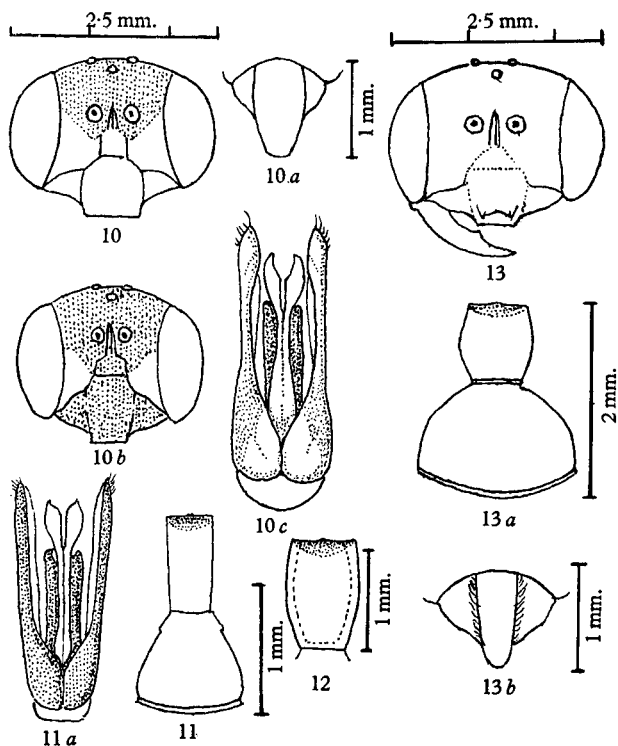


Fig. 10. *Cerceris bredoi*, ♀.
 Fig. 10a. *Cerceris bredoi*, ♀ pygidium.
 Fig. 10b. *Cerceris bredoi*, ♂.
 Fig. 10c. *Cerceris bredoi*, ♂ genitalia, $\times 42$.
 Fig. 11. *Cerceris tenuiventris*, ♂, first and second tergites.
 Fig. 11a. *Cerceris tenuiventris*, ♂ genitalia, $\times 42$.
 Fig. 12. *Cerceris egena*, ♂, petiole.
 Fig. 13. *Cerceris verecunda*, ♀.
 Fig. 13a. *Cerceris verecunda*, ♀, first and second tergites.
 Fig. 13b. *Cerceris verecunda*, ♀, pygidium.

Kaputa Mweru, Northern Rhodesia, January, 1 ♀; Abercorn, Northern Rhodesia, June, 1 ♂.

In my key to the species (Arnold, 1931) this species runs down to *hypocritica* Brauns, but is quite distinct, differing in the size, colour, punctuation and shape of the petiole. The genitalia of the ♂♂ differ considerably.

***Cerceris tenuiventris* n.sp. (Figs. 11, 11a)**

♂. 7 mm. long. Black. Clypeus, face up to the level of the antennal sockets, underside of the scapes, an oblong and transverse spot on the shoulders of the pronotum, outer half of the tegulae, an apical band, dilated laterad, on the third tergite, a band on the third sternite dilated laterad, a band on the sixth tergite not reaching the sides, the anterior tibiae and tarsi and a narrow streak on the underside of the anterior femora, the middle tibiae and tarsi, whitish yellow. The femora brown, the posterior tibiae brown and pale yellow at the base and apex, the posterior metatarsi pale yellow, the remaining tarsal joints pale brown. Wings hyaline, the apex of the anterior pair smoky, the veins pale brown, the pterostigma ochreous. Clypeus and yellow areas of the face with a sparse silvery pubescence and large punctures, the interspaces about twice as wide as the punctures. Upper part of the face, vertex, temples and pronotum with a closer and slightly larger puncturation, or almost reticulate punctate. Mesonotum, mesopleura, epinotum and petiole with deep punctures a little larger than those of the vertex, the metapleura dull, closely and obliquely striate, the triangular area of the epinotum smooth and shining, with a fine median longitudinal line. The tergites 2-6 with punctures nearly twice as large as those of the mesonotum, the interspaces as wide as the punctures, the pygidium with a few large punctures, the sternites more finely punctured than the tergites. Thorax and abdomen nitidulous. Median area of the clypeus subhexagonal, about one-fourth longer than wide, the apical margin feebly convex. Inner orbits of the eyes slightly divergent below. Interocular distance on the vertex equal to the length of the first five joints of the flagellum. Second joint of the flagellum two-thirds longer than wide, and as long as the third joint. Petiole twice as long as wide, barely narrowed posteriorly, the sides straight, and as long as the second tergite. Pygidial area twice as long as wide, the sides feebly convex, the apical margin straight. Hind tibiae with five feeble spiniferous serrations.

Victoria Falls, Southern Rhodesia, November, 2 ♂♂, on the flowers of a small bush. This species comes nearest to *C. egena* Arn. ♂, but is a more slender insect, and differs by the colour of the clypeus, the shape of the petiole and the pygidial area. The text-figure of the petiole in my description of *egenae* ♂ (Arnold, 1942) is inaccurate, the sides of the petiole being convex and not straight as depicted, and the segment is considerably narrowed caudad, much more than in *tenuiventris*. A corrected drawing of *egenae* is given herewith in Fig. 12. The width of the petiole is somewhat variable, as indicated by the dotted line.

***Cerceris verecunda* n.sp. (Figs. 13, 13a, b)**

♀. 9 mm. long. Black. Basal two-thirds of the mandibles reddish ochreous, the apex fuscous. Scapes ferruginous, flagellum dark brown, the second and third joints reddish on the underside. Frontal carina yellow. Tegulae ferruginous. Second sternite ferruginous, black in the

middle. Third tergite with a thin yellow apical band, slightly dilated at the sides. Third sternite with a yellow mark, Γ -shaped, in the basal angles. Wings hyaline, the radial cell and the apex of the forewing dark fuscous, the veins black. Anterior femora pale red, the tibiae fusco-ferruginous above, yellow below, the tarsi ochreous. Middle and hind femora and tibiae fusco-ferruginous, their metatarsi pale yellow, the remaining tarsal joints brown. The whole body dull, with a short, oblique and whitish pubescence, the epinotum and petiole with some longer, erect and white hairs. Clypeus and face closely, shallowly and finely punctured, the metapleura transversely striate, the anterior margin of the sides of the epinotum with a few large rugae, the sternites sparsely and coarsely punctured over the basal half. The rest of the body, excepting the triangular area of the epinotum, deeply punctured, closely so or reticulate punctate on the head, thorax and petiole, less closely on the second to fifth tergites. The punctures on the vertex and temples are a little less than half as wide as the ocelli, a little larger on the mesonotum, scutellum and epinotum, smaller on the metanotum and slightly larger on the second and third tergites, progressively smaller on the fourth and fifth tergites. Triangular area of the epinotum with a deep, clathrate median sulcus and a few oblique rugae at the sides. Pygidial area with a few large and transverse punctures on the basal half. Median area of the clypeus a little longer than wide, its basal two-thirds fairly flat, raised anteriorly and ending in a short free lamina. The anterior margin of the lamina is obtusely angularly emarginate in the middle and has a blunt tooth at each corner. Interocular distance on the vertex equal to the length of the first seven joints of the flagellum. Inner orbits of the eyes slightly divergent above and below. Second joint of the flagellum nearly three times longer than wide at the apex and one-third longer than the third joint. Posterior ocelli a little farther from the eyes than from each other. Petiole as long as wide, widest in the middle, the sides distinctly convex. Second tergite one and a half times longer than the petiole. Pygidial area a little wider at the base than at the rounded apex, two and a third times longer than wide. Hind tibiae with six spiniferous serrations.

Kaputa, Mweru, Northern Rhodesia, February, 1 ♀ (*H. J. Bredo*). Related to *C. macololo* Brauns, from which it differs by the entirely black clypeus, face, thorax, second and fifth tergites and by the shape of the clypeus and the pygidial area.

Subfamily NYSSONINAE

Gorytes basutorum n.sp. (Figs. 14, 14a-c)

♂. 7.5 mm. long. Black. The following parts are pale lemon yellow: mandibles excepting the fusco-ferruginous apex, clypeus, lower half of the sides of the face but narrowed above, underside of the scapes, pronotal dorsum and tubercle, a small spot on the mesopleura below the wing bases, posterior half of the scutellum, an apical band on the first tergite dilated laterad and not reaching the sides, an apical band dilated

laterad on the second tergite, narrow apical bands on the third and fourth tergites attenuated laterad and not reaching the sides and a narrow apical band dilated laterad on the second sternite. Tegulae and the lateral margins of the mesonotum in the posterior half, flavo-ferruginous. Femora and tibiae flavo-ferruginous, the anterior and middle tarsi pale yellow, the hind metatarsus brown on the inner side, white on the outer, the second to fourth joints white at the base, blackish over the

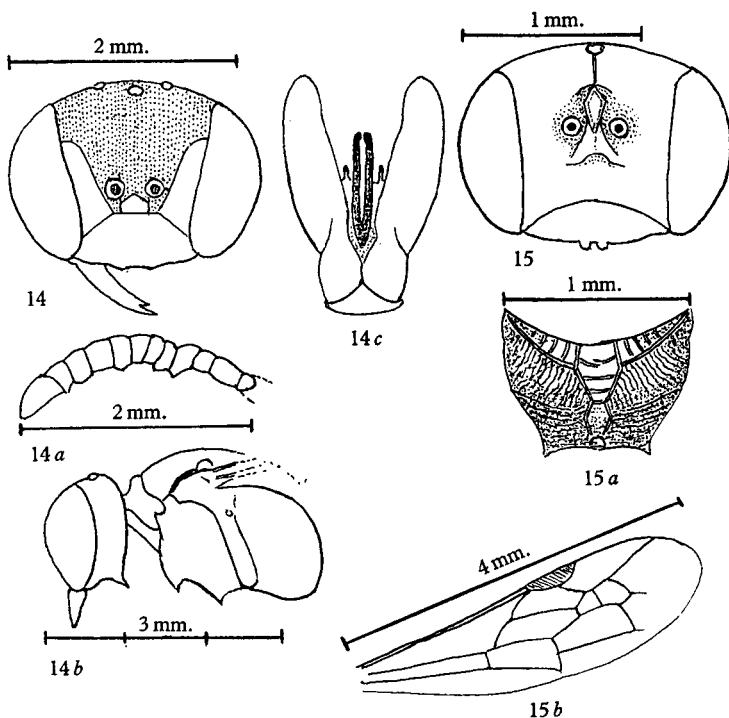


Fig. 14. *Gorytes basatorum*, ♂.

Fig. 14a. *Gorytes basatorum*, flagellum.

Fig. 14b. *Gorytes basatorum*, head and thorax.

Fig. 14c. *Gorytes basatorum*, genitalia, $\times 30$.

Fig. 15. *Psenulus saltitans*, ♀.

Fig. 15a. *Psenulus saltitans*, ♀, epinotum.

Fig. 15b. *Psenulus saltitans*, ♀, forewing.

apical half, the fifth joint black. Wings hyaline, the radial cell, the second cubital and the upper third of the third cubital cell brown, the veins black. Clypeus and yellow areas of the face dull, with a short silvery pubescence. Vertex with punctures about one-tenth of a millimetre wide, the interspaces nitidulous and wider than the punctures. Temples finely and closely punctured and dull, the carina which margins the occiput is armed with an acute spine below (Fig. 14b). Collar of the pronotum smooth and shining. Mesonotum and mesopleura with punctures a little larger than those of the vertex, the interspaces aciculate and for the greater part twice as wide as the punctures. A smooth epicnemium is present. Mesosternum shining, very sparsely punctured, with a pimple

on each side, separated from the mesopleura by a carina which is bidentate. Metapleura impunctate. Scutellum shining and closely punctured on the anterior half and with a row of punctures in front of the hind margin. Metanotum finely punctured and dull. Triangular area of the epinotum dull, with twelve oblique rugae, the sides and the dorsum outside the triangular area dull, irregularly and sparsely punctured. The whole thorax and abdomen with a very fine, decumbent and grey pubescence. Abdomen dull, very sparsely punctured, the puncturation becoming progressively smaller on each succeeding segment; the largest punctures, on the second tergite, are less than half as large as those of the vertex. Clypeus nearly twice as wide as long, the apical margin convex. Interocular distance on the vertex equal to the length of the first eight joints of the flagellum plus half of the ninth and one-third greater than the inferior interocular distance. Posterior ocelli as far from the eyes as from each other. Second joint of the flagellum hardly longer than wide at the apex, one-fourth longer than the third, the fourth and fifth dilated at the apex underneath, the ninth and tenth excavated below. First tergite one-sixth wider at the apex than long. First abscissa of the radius as long as the second, the latter as long as the first.

Mamathes, Basutoland, December-January, 4 ♂♂; Leribe, Basutoland, December, 1 ♂ (*C. Jacot-Guillarmod*). Lichtenburg, Transvaal, December, 1 ♂ (*Dr H. Brauns*). Related to *G. eurynome* Arn. from which it differs, *inter alia* by the smaller size, finer puncturation, the colour of the last three abdominal segments and the bidentate carina of the mesosternum.

Subfamily PEMPHREDONINAE

***Psenulus saltitans* n.sp.** (Figs. 15, 15a, b)

♀. 5.5 mm. long. Smaller than, and related to *P. turneri* Arn. (Arnold, 1927, p. 121), from which it differs as follows. Scapes flavo-ferruginous, underside of the flagellum reddish ochreous, the upperside brown. Anterior tibiae and tarsi reddish ochreous, the femora reddish brown. Middle and hind legs black. First and second abdominal segments black, the third blackish at the base and becoming gradually ferruginous towards the apex, the remaining segments pale ferruginous. Wings clear hyaline and iridescent, the veins and pterostigma black. Face shining, obliquely rugose above the antennal sockets, the vertex shining, sparsely and finely punctured, the temples closely striate lengthwise and dull. Thorax and abdomen shining. Scutellum and metanotum very finely and sparsely punctured, sides of the epinotal dorsum closely, obliquely and finely rugose, the median area hexagonal, with four transverse carinae. Petiole two-thirds longer than the first tergite. Second cubital cell not stalked on the radius, the first abscissa of the radius as long as the second and third united.

Cashel, Southern Rhodesia, December, 3 ♀♀. Jumping about on the leaves of a shrub, probably in search of aphids.

Subfamily CRABRONINAE

Crabro (Ectemnius?) arrogans n.sp. (Figs. 16, 16a, b)

♂. 10.5 mm. long. Black. Mandibles ochreous, the apical teeth black. The following parts lemon yellow: clypeus, scapes, anterior half of the pronotal collar, a narrow longitudinal streak on each side of the mesonotum adjacent to the tegulae, anterior half of the scutellum, the metanotum, the first sternite, a streak on each side of the first tergite dilated triangularly caudad and not reaching the hind margin, a large transverse macula on each side of the basal half of the third tergite, a smaller one on the fourth, the whole of the fifth, sixth and seventh tergites, the fore and middle legs, excepting the tarsi which are blackish, and the

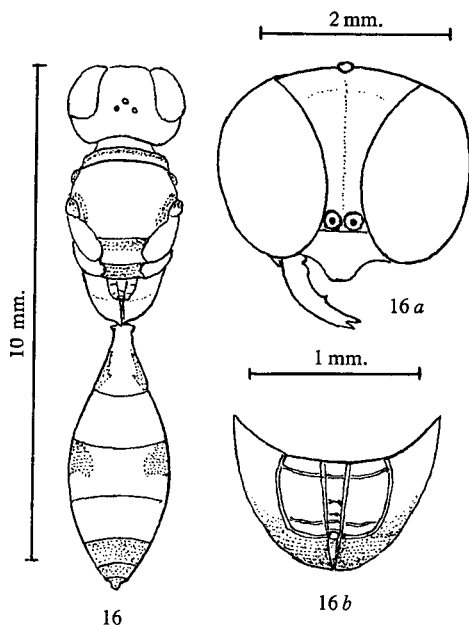


Fig. 16. *Crabro arrogans*, ♂ (stippled areas yellow).

Fig. 16a. *Crabro arrogans*, head.

Fig. 16b. *Crabro arrogans*, epinotum.

underside of the femora, which are pale brownish red. The hind coxae on the upperside, the whole of the trochanters, nearly the whole of the upperside of the hind femora and tibiae are also lemon yellow, the underside brownish red. Wings hyaline, the veins and pterostigma dark brown. Clypeus, face and temples with a short silvery pubescence, the sides of the thorax and the epinotum, excepting the median cordate area, with decumbent and grey pubescence. Labial palpi 3-jointed, maxillary palpi 6-jointed. Mandibles bifid at the apex and with a small tooth at about the middle of the upper margin. Antennae 13-jointed, the scapes not

carinate, all the joints of the flagellum simple, the second joint two and two-thirds longer than wide at the apex and one-third longer than the third joint. Face without a transverse carina. Vertex nitidulous, very shallowly and finely punctured, the interspaces wider than the punctures, without lateral foveae. Ocelli arranged in a low triangle, the posterior pair a little farther from the eyes than from each other. Thorax moderately shining, the pronotal collar smooth and impunctate on the dorsal face, dull and microscopically punctured on the vertical anterior face. Mesonotum with a puncturation larger and deeper than that of the vertex, the interspaces wider than the punctures which are arranged in transverse rows. The puncturation of the scutellum and metanotum finer than that of the mesonotum. Sides of the thorax almost impunctate, the mesopleura with a large anterior epicnemium and without a precoxal carina. Dorsum of the epinotum with a sharply margined semi-circular median area, traversed by a longitudinal and transversely rugose sulcus which is continued in the deep sulcus of the vertical declivity. On each side of the sulcus there is a transverse carina at the base and apex. The lateral areas of the dorsum and the declivity are coarsely rugose. The lateral margins of the epinotal dorsum are sharply carinate, the carina extending down the declivity. Abdomen sparsely and microscopically punctured, the punctures hardly visible with a magnification of 50 diameters. First tergite about one-third longer than wide at the apex, twice as wide there as at the base, one-third longer than the second tergite. Pygidium flat, broadly triangular, the apex rounded. Median area of the clypeus produced, its anterior margin convex. Anterior femora flattened on the underside and dilated in the anterior half, without a fringe of long hairs. Anterior metatarsus arcuately excised below, the trochanter normal, i.e. not compressed and subquadrate as in *C. ruwenzoriensis* Arn. Middle tibiae with one calcar, the hind tibiae with two, the inner one of which is thickened, lanceolate and without a comb. First abscissa of the radius nearly as long as the second, the first abscissa of the cubital vein (Rs + M) nearly one and a half times longer than the second.

Selukwe, Southern Rhodesia, November, 1 ♂ (*R. H. R. Stevenson*). This species bears a superficial resemblance to *C. ruwenzoriensis* Arn. from which it is easily distinguished, *inter alia*, by the anterior trochanters and femora, the mandibles and the entirely shining tergites. In Leclercq's (Leclercq, 1954, p. 265) key to the subgenera of *Ectemnius*, which I still consider no more than a species-group, *sensu* Kohl, this species runs down to his subgenus *Protoctemnius* containing one species, *P. tabanicida* Fischer, a Brazilian insect. Apart from the 13-jointed antenna the other characters of *arrogans* place it in Leclercq's definition of subgenus *Hypocrabro* Ashmead.

I take this opportunity to make a correction in Leclercq's arrangement of the species. He has placed *C. seyrigi* Arn. in the subgenus *Hypocrabro*, notwithstanding the fact that in my description the mesonotum is described as longitudinally rugose. It should therefore, according to his scheme, be placed in the subgenus *Metacrabro* Ashmead.

Family **POMPILIDAE**
Subfamily **CTENOCERATINAE**
Genus **Paraclavelia** Haupt.

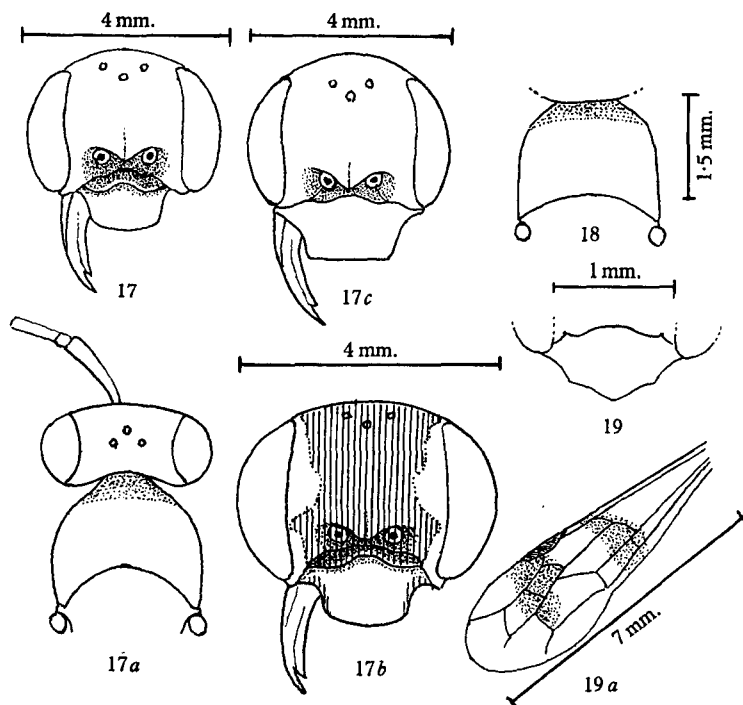
This genus, exclusively African, comprises twenty-three species in which only two are known in both sexes. Thirteen are known only in the female sex, and the majority of those are closely related. The specific differences lie in the shape of the clypeus, the length of the vertex and the character of its hind margin, and the proportions of the rest of the thorax, or of the abdomen. A difference of a minor order lies in the colour. A peculiarity which it shares in the ♀ with some species of *Ctenocerus* (*Protoclavelia*), and which I have not seen in any other Pompilid, is the nature of the pubescence of the vertex, pro-mesonotum and scutellum. This pubescence is very dense, very fine and adpressed, completely obscuring the underlying smooth, shining and finely punctured dermis and is arranged in lines, something like the loosened strands of a piece of string.

In the following descriptions the generic characters have not been included, since they may be seen in my diagnosis of the genus (Arnold, 1932, 66).

***Paraclavelia opulenta* n.sp. (Figs. 17, 17a)**

♀. 17 mm. long. Mandibles, antennae and head ferruginous (Séguy Code Univ. des Couleurs, rouge no. 126), pronotum fusco-ferruginous (rouge no. 111), the rest of the thorax black. Abdomen greenish steel blue, the colour masked at certain angles by a microscopic decumbent pubescence or bloom of a greenish grey colour. Head, excepting the clypeus, and the thorax covered with a microscopic and dense pubescence arranged in wavy lines, as in *P. rhodesiensis* Arn. and *P. marshalli* Bingh. On the face most of this pubescence has been rubbed off, exposing the sculpture, which like that of the thorax, consists of a very fine and close puncturation (30 diameters). The clypeus and mandibles are shining, sparsely and shallowly punctured. Metanotum shining, transversely striate, in the middle as long as the first joint of the flagellum. Dorsum of the epinotum transversely rugulose, also finely and closely punctured, and in the middle with some rugae which are small at the base, becoming progressively thicker and longer towards the hind margin, only the last two reaching the lateral margins. Declivity coarsely and transversely rugose. The whole thorax dull. Mandibles with a tooth a little behind the apex. Clypeus slightly more than one and a half times wider than long, the anterior margin convex, its junction with the lateral margins rounded, the base deeply recessed and forming with the depressed bottom of the face large antennal fossettes. Face in the middle three times wider than one eye. Interocular distance on the vertex equal to the length of the first two joints of the flagellum plus nearly half of the third joint. Ocelli nearly twice as far from the eyes as from each other. The junction of the

feebly convex hind margin of the vertex with the occiput is rounded; the vertex, measured from the level of the posterior ocelli to its hind margin, is as long as two-thirds of the second joint of the flagellum. Second joint of the flagellum four times longer than wide at the apex and nearly one-fourth longer than the third joint. Dorsum of the pronotum feebly convex transversely and two and two-ninths wider behind than long in the middle. Dorsum of the epinotum four-fifths wider at the base than long in the middle and a little longer than the declivity. Last abdominal segment shining and impunctate, moderately compressed transversely. Venation like that of *P. marshalli* Bingham.



Figs. 17, 17a. *Paraclavelia opulenta*, ♀.
 Fig. 17b. *Paraclavelia opulenta* ssp. *umtaliensis*, ♀.
 Fig. 17c. *Paraclavelia marshalli*, ♀.
 Fig. 18. *Paratrichosalius obesus montanus*, ♀, pronotum.
 Fig. 19. *Pseudagenia brunnitarsis*, ♀, clypeus.
 Fig. 19a. *Pseudagenia brunnitarsis*, forewing.

Insuza River, Victoria Falls road, about 40 miles N.N.W. of Bulawayo, November, 1 ♀. Related to *P. marshalli* (Fig. 17c), from which it differs by the shape of the clypeus, the convex junction of the vertex with the occiput, the width of the face and the colour of the head, thorax, tibiae and tarsi. From *rhodesiensis* Arn. it differs by the colour of the head and pronotum and the shorter clypeus.

***Paraclavelia opulenta umtaliensis* n.sp. (Fig. 17b)**

♀. 20 mm. long. Mandibles fusco-ferruginous on the upper surface, a little paler over the basal half. Clypeus, excepting the recessed base, and narrowly at the sides, the sides of the face up to the level of the anterior ocellus, the upper half of the temples and of the occiput, ochreous. The yellow on the face is wider in the middle than above and below. The rest of the head black. Posterior ocelli two-sevenths farther from the eyes than from each other. Second joint of the flagellum a little more than three times longer than wide at the apex. Otherwise like the type of the species.

Umtali, Southern Rhodesia, December, 1948, 1 ♀.

***Trichosalius (Paratrichosalius) obesus montanus* n.sp. (Fig. 18)**

T. obesus Arnold, 1934, *Ann. Trans. Mus.* xv, 393, ♀.

♀. 9.2–10.5 mm. long. This differs from the type of the species as follows. The apical infuscation of the flavo-hyaline wings does not reach the second discoidal cell. The last three joints of the black maxillary palpi are shorter, being only as long as the first two joints of the flagellum plus three-fifths of the third. Clypeus two and a half times wider than long. Second joint of the flagellum shorter, and one-eighth shorter than the third joint. Pronotum nearly two-fifths longer than the mesonotum and narrower than in the type of the species, being only three-sevenths wider behind than long (including the neck). Dorsum of the epinotum narrower, only two-fifths wider at the base than long.

Mamathes, Basutoland, November and December, 2 ♀♀ (*C. Jacot-Guillarmod*).

Subfamily PSEUDAGENIINAE

***Pseudogenia brunnitarsis* n.sp. (Figs. 19, 19a)**

♀. 8 mm. long. Black. Apical half of the mandibles fusco-ferruginous. Palpi pale ochreous, the mental beard composed of six yellow bristles, antennae dark brown, tarsi reddish brown. Wings hyaline, bifasciated, the fasciae pale brownish yellow (Fig. 19a). Head and thorax with a microscopic grey and decumbent pubescence, the head, pro-mesothorax, metanotum and pleura with a very fine and close puncturation (36 diameters), the interspaces as large as the punctures, slightly shining or not quite dull. Postnotum dull, transversely striate. Epinotum dull, closely reticulate, transversely rugulose at the base (36 diameters). Abdomen shining, with a pruinose pubescence, the sixth tergite yellowish brown. Clypeus twice as wide as long, the apical margin moderately produced in the middle, behind the apical margin distinctly gibbous. First joint of the flagellum twice as long as wide, the second joint five times longer than wide at the apex and one-ninth longer than the third joint. Posterior ocelli twice as far from the eyes as from each other. Shoulders of the pronotum widely rounded. Mesonotum two-fifths wider than long and two-thirds longer than the scutellum, the latter as long as wide at the

base. The dorsum of the epinotum merges into the declivity by a low arc. First tergite as long as wide at the apex, distinctly petiolate.

Vumba Mountains, Southern Rhodesia, December, 1933, 1 ♀. Related to *P. somalica* Magr. var. *pauperata* Arn., but with larger puncturation on the head and thorax and without distinct transverse rugae on the epinotum. The first tergite is also more distinctly petiolate. The venation and fasciae of the wings are very similar to those of *pauperata* but the third cubital cell is longer on the cubitus.

***Pseudagenia diana* n.sp. (Figs. 20, 20a, b)**

♀. 17 mm. long. Black. Mandibles and clypeus orange yellow, the clypeus with a wide black streak in the middle which does not reach the apical margin. The extreme apical margin of all the trochanters dull white. Wings pale fuscous, the forewing bifasciated (Fig. 20b). Head, pronotum, mesonotum, scutellum and the pleura dull, very closely and microscopically reticulate-punctate, the scutellum also finely and longitudinally rugulose at the sides. Disc of metanotum dull, reticulate rugose, the sides obliquely rugose and shining. Postnotum shining, with four transverse and acute carinae. Epinotum dull, strongly, closely and transversely rugose on the dorsum, reticulate rugose on the declivity, the metapleura dull and transversely rugose. Abdomen nitidulous, with a greyish purinose and decumbent pubescence, the sixth tergite flat, shining and with a few widely separated punctures and a long and fulvous pilosity. Mandibles and clypeus with long yellow pilosity, the temples with a white one. Thorax and coxae with a very fine, decumbent and white pubescence and also with long exserted white hairs, more abundant on the epinotal declivity than elsewhere. Beard on the mentum composed of eight fulvous bristles. Clypeus fairly long, a little less than twice as wide as long, the anterior margin convex and not quite twice as long as the lateral margins. Antennae long, the second joint very nearly seven times longer than wide at the apex and nearly half as long again as the third joint. Interocular distance on the vertex equal to eight-ninths of the length of the second joint of the flagellum. Posterior ocelli very nearly twice as far from the eyes as from each other. Pronotal dorsum very short in the middle, hardly twice as long as the first joint of the flagellum, the anterior face vertical. Mesonotum two-sevenths wider than long, three-fourths longer than the scutellum, which is strongly convex lengthwise and transversely. Postnotum nearly as long as the metanotum. In profile the dorsum and declivity of the epinotum form a low arc. First tergite subpetiolate, as long as the second, which is a little wider than long. The inner fascia of the forewing covers the proximal angle of the first cubital cell, the proximal two-thirds of the first discoidal and half of the second submedial cell; the outer fascia covers half of the radial cell, the whole of the second cubital and the outer upper third of the second discoidal cell.

Zomba, Nyasaland, December, 1926, 1 ♀ (*Colin Smees*). Related to *P. obesa* Arn., from which it is distinguished, *inter alia*, by the fuscous

wings, the much less gibbous dorsum of the thorax, the stronger rugae of the epinotum and the posteriorly wider first tergite. The wings are also much longer, extending back well beyond the apex of the abdomen.

***Pseudagenia praestans* n.sp. (Figs. 21, 21a)**

♀. 11.5 mm. long. Black, apical half of the sixth tergite testaceous. Wings hyaline, bifasciated, the veins and pterostigma dark brown. The whole body dull. Head and thorax, excepting the postnotum and epinotum, microscopically and very closely punctured (50 diameters). Postnotum transversely striate, epinotum closely and transversely rugose,

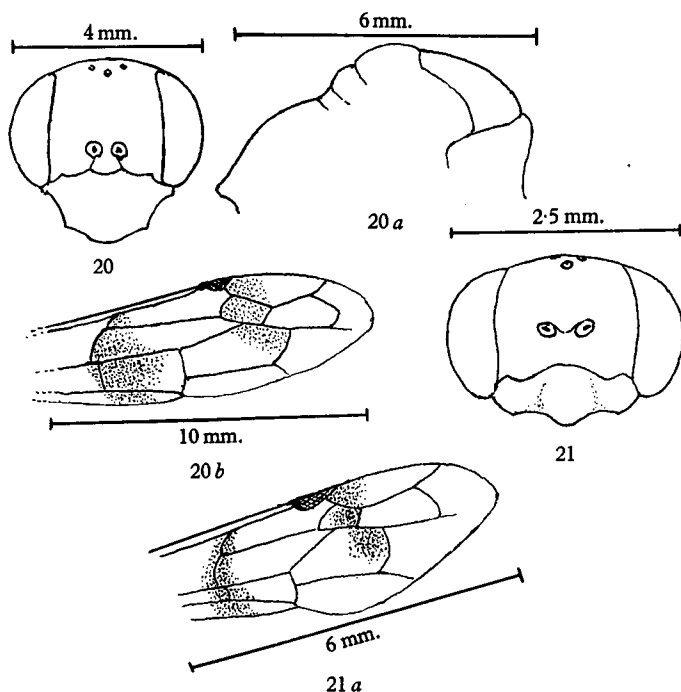


Fig. 20. *Pseudagenia diana*, ♀.

Fig. 20a. *Pseudagenia diana*, dorsal outline of thorax.

Fig. 20b. *Pseudagenia diana*, ♀ forewing.

Fig. 21. *Pseudagenia praestans* ♀.

Fig. 21a. *Pseudagenia praestans*, ♀, forewing.

the rugae increasing in height and length posteriorly, the interspaces reticulate-punctate. Clypeus and lower half of the face with silvery pubescence. Scutellum, upper corners of the metapleura, extreme base of the epinotal dorsum, sides of the declivity and the coxae, with dense decumbent and silvery pubescence, which on the scutellum is directed on each side obliquely to the middle line so that it is very conspicuous when the insect is viewed from behind, and invisible when viewed from

in front. The rest of the body greyish pruinose. Clypeus twice as wide as long, the anterior margin bisinuate. Inferior interocular distance one-third greater than on the vertex, where it is equal to the length of the second joint of the flagellum. Posterior ocelli three-fifths farther from the eyes than from each other. Second joint of the flagellum four and a third times longer than wide at the apex and one-fourth longer than the third. Dorsum of the pronotum short, the shoulders convex. Mesonotum nearly one and a half times wider than long, and three-fourths longer than the scutellum, the latter rather flat, one and a half times wider at the base than long. Postnotum in the middle two-thirds as long as the metanotum. Epinotum as long as wide at the base, parallel-sided, feebly convex lengthwise. First tergite as long as wide at the apex, a little longer than the second tergite. Sixth tergite shining, with a few shallow punctures. Inner fascia of the forewing narrow. The outer fascia covers the proximal third of the radial cell, the distal corner of the first cubital, the second cubital excepting the inner lower angle, and the outer third of the second discoidal cell. Second abscissa of the radius twice as long as the first, the third abscissa twice as long as the second.

Bulawayo, Southern Rhodesia, October, 1 ♀. The venation and the fasciation of the forewing are very similar to those of *P. vumbui* Arn., from which it is easily distinguished by its greater size, the bisinuate apical margin of the clypeus and the peculiarly arranged silvery pubescence on the scutellum.

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