XXIII. South African Aculeate Hymenoptera in the Oxford Museum. By the late Col. C. T. Bing-Ham, F.Z.S. With Introduction by Prof. E. B. Poulton, D.Sc., M.A., F.R.S.

[Read May 3rd, 1911.]

The Hope Department having in recent years received many accessions to its collection of South African Hymenoptera Aculeata, I asked my friend the late Col. C. T. Bingham if he would work out the material, preparing a list and describing the new forms. He agreed with me that such a memoir would be of value to the students of African insects, and he consented to undertake it in the intervals of other work. I brought the whole of the material to the Natural History Museum and, from time to time during the last few years of his life, he devoted himself to its study. He often showed me the parts of the collection he had worked out and the gradually increasing pile of manuscript. What Col. Bingham had accomplished at the time of his lamented death is now given to the world in the following paper, which also includes the description of a new South African Aculeate from the collections made in 1905 by Dr. F. A. Dixey and Dr. G. B. Longstaff, and submitted to the author. by the naturalist last named.

The source of each of the examples studied by Col. Bingham is clearly indicated in the paper, but I may mention that, in addition to the South African examples in the W. W. Saunders Collection, the following recently-made collections were submitted to the author: the specimens collected by Mr. S. A. Neave in Northern Rhodesia; by Mr. Guy A. K. Marshall in S. Rhodesia, chiefly the Salisbury District; by Dr. F. N. Brown in the Orange River Colony and Natal; by Mr. G. F. Leigh and

Mr. F. Muir in Natal.

The types of all the descriptions are in the Hope

Department of the Oxford University Museum.

In presenting the labours of the lamented naturalist to the Society, I have acted throughout under the skilled advice of his friend and fellow-worker Mr. Rowland E. Turner.

E. B. Poulton.

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FOSSORES.

Family MUTILLIDAE.

1. MUTILLA ATROPOS, Smith.

Mutilla atropos, Sm., Cat. Hym. B.M., iii, 1855, p. 22 &; André, Zeit. Hym. Dipt., iii, 1903, p. 235.

Mutilla albistyla, Sauss., in Dist., Naturalist in the Transvaal, 1892, p. 25, pl. 4, fig. 7 3.

Mutilla artemisia, Pér., Ann. S.A. Mus., i, 1899, p. 368.

NATAL & (Coll. W. W. Saunders). RHODESIA: Mashonaland, Salisbury 5000 ft. & (G. Marshall); Loangwa District, Petauké 1700–2400 ft. & (S. A. Neave). Originally described from Natal. Type in the British Museum, also other specimens from Lake Ngami and from Angola.

2. MUTILLA MINOS, Smith.

Mutilla minos, Sm., Cat. Hym. B.M., iii, 1855, p. 16 3.

Rhodesia: Mashonaland, Salisbury 5000 ft. & (G. Marshall); Loangwa District, Petauké 1700–2400 ft. &, Fort Jameson 3000 ft. & (S. A. Neave).

3. MUTILLA PURPURATA, Smith.

Mutilla purpurata, Sm., Descr. New sp. Hym. B.M., 1879, p. 190 ♂; Pér., Ann. S.A. Mus., i, pt. i, 1898, p. 60 ♀ and pt. ii, 1899, pl. 8, figs. 6, 14 ♀ ♂; André, Zeit. Hym. Dipt., ii, 1902, p. 33.

RHODESIA: Mashonaland, Salisbury 5000 ft. & (G. Marshall). Originally described from Natal. Type & in B.M., also other specimens from Natal and B.E. Africa. Type & in S.A. Museum, Cape Town.

4. MUTILLA PSAMMATHE, Péringuey.

Mutilla psammathe, Pér., Ann. S.A. Mus., i, pt. 2, 1899, p. 356 分 元.

NATAL \mathcal{J} \mathcal{I} in cop. (F. Muir). Types in S.A. Mus. from Zambesia (G. Marshall).

5. MUTILLA CHARAXUS, Smith.

Mutilla charaxus, Sm., Cat. Hym. B.M., iii, 1855, p. 17 3.

- S. Africa \mathcal{J} (Coll. W. W. Saunders). Rhodesia: Mashonaland, Salisbury 5000 ft. \mathcal{J} , Buluwayo \mathcal{J} \mathcal{J} in cop. Dec. 1903 (G. Marshall).
- Q. Head and abdomen black, thorax dark red. Head, thorax, and abdomen covered with erect black hairs. Head about as broad as the thorax anteriorly, covered with coarse, somewhat greyish pile, beneath which it is closely punctured; mandibles acute at tip with a small preapical tooth on their inner margins; antennae opaque, the scape covered with pile similar to that on the front and vertex, 1st joint of the flagellum very short, 2nd twice as long as the 3rd; eyes oval, rather small, equidistant from the occiput and the base of the mandibles. Thorax: strongly punctured above, the sides excavate and smooth. Seen from above, the thorax is narrow and rounded anteriorly, emarginate at the sides and distinctly broadened posteriorly; the dorsal surface convex, passing evenly and roundly into the posterior vertical face, which is slightly concave in the centre; legs black, covered with whitish hairs; the calcaria and the single row of spines on the intermediate and posterior tibiae white; claws simple, pale reddish-brown. Abdomen somewhat densely covered with short black pile, beneath which it is closely punctured; 1st segment immaculate beneath, longitudinally carinate, with a single somewhat deep emargination in the middle, 2nd segment with two rounded pubescent spots side by side placed closer to the base than to the apex of the segment, the lateral edges of the dorsal plate with a short longitudinal line of red; 3rd segment with a transverse band of dense white pubescence broadly interrupted in the middle, apex of the dorsal and the apices of the 2nd to the 5th ventral segments conspicuously fringed with white hairs, pygidial area clearly defined, flat and finely punctured.

Length ♀ 8 mm.

Described from the single 2 taken in cop. at Buluwayo

by Mr. G. A. K. Marshall.

From the \mathfrak{P} of M. leucopyga, it can be distinguished by the shape of the thorax, which in leucopyga has the sides parallel, and by the proportion of the joints of the flagellum of the antennae.

6. MUTILLA MEDON, Smith.

Mutilla medon, Sm., Cat. Hym. B.M., iii, 1855, p. 20 ♂; Sich. and Radoszk., Hor. Soc. Ent. Ross., vi, 1869, p. 239, pl. 21, fig. 12 ♂. NATAL: Durban & & in cop. (G. F. Leigh). RHODESIA: Mashonaland, Salisbury & & in cop. Nov. 19, 1905 (G. Marshall); Loangwa District, Petauké 1700–2400 ft. & (S. A. Neave). Type in B.M. from the Congo, also other specimens from Natal and from Beira in Portuguese East Africa.

Q. Head and abdomen black, thorax red. Head, thorax and abdomen covered with short erect black hairs, sparse on the head and abdomen, somewhat more thickly set on the thorax. Head slightly broader than the thorax anteriorly, closely punctured; mandibles acute with a preapical short, blunt tooth on their inner edges; antennae opaque, the scape closely set with short pale pubescence; antennal tubercles red; 2nd joint of the flagellum incrassate towards the apex, twice as long as the 3rd, 3rd and 4th subequal; eyes oval, placed equidistant from the base of the mandibles and the occiput. Thorax rectangular, slightly convex above, rounded anteriorly, the pronotal lateral angles not prominent, sides slightly emarginate, posterior face vertical. Seen from above the thorax is not broader anteriorly than posteriorly; legs black covered with whitish hairs, the single row of spines on the intermediate and posterior tibiae and the calcaria white. Abdomen finely punctured, the punctures shallow; 1st segment immaculate, longitudinally carinate below, the carina terminating posteriorly in a vertical tooth; 2nd segment with two pubescent white spots side by side above; 3rd and 4th segments with pubescent white bands above, both bands broadly interrupted in the middle; apex of 5th segment above and apices of 2nd to 5th ventral segments fringed with long white hairs, those fringing the 5th dorsal segment falling over and completely shading a well-defined, flat and longitudinally striate pygidial area.

Length ♀ 8-13 mm.

Note.—The \mathcal{P} taken in cop. at Salisbury, Nov. 19, 1905, by Mr. Marshall, had been placed at the head of the series by Col. Bingham, and has been considered as the type of the above description of this sex.—E. B. P.

7. MUTILLA PREDATRIX, Smith.

Mutilla predatrix, Sm., Descr. New sp. Hym. B.M., 1879, p. 191 ♀.

NATAL $\cite{Goll. W. W. Saunders}$. Rhodesia: Mashonaland, Salisbury 5000 ft. $\cite{G. Marshall}$. Type in the B.M. from Natal, also other specimens from Delagoa Bay and Zululand.

8. MUTILLA DECIPIENS, Smith.

Mutilla decipiens, Sm., Descr. New sp. Hym. B.M., 1879, p. 194 ♀.

NATAL \$\(\text{Coll. }W.\) W. Saunders). Type in B.M., also other specimens from Natal.

9. MUTILLA SPECULATRIX, Smith.

Mutilla speculatrix, Sm., Descr. New sp. Hym. B.M., 1879, p. 194 ♀; Pér., Ann. S.A. Mus., i, pt. 1, 1898, p. 88 ♂.

NATAL \cent{Q} (Coll. W. W. Saunders). Type in B.M., also other specimens from Natal. A single \cent{Q} in B.M. from S. Nigeria (D. A. MacAlister).

10. MUTILLA SINUOSICEPS, André.

Mutilla sinuosiceps, André, Zeits. Hym. Dipt., ii, 1902, p. 27 f.

RHODESIA: Mashonaland, Salisbury 5000 ft. & (G. Marshall).

11. MUTILLA ARGENTEIVENTRIS, André.

Mutilla argenteiventris, André, Zeits. Hym. Dipt., ii, 1902, p. 25 3.

Rhodesia: Mashonaland, Salisbury 5000 ft. 3 (G. Marshall).

12. MUTILLA PÉRINGUEYI, André.

Mutilla péringueyi, André, Zeits. Hym. Dipt., ii, pt. 1, 1902, p. 25 3.

Estcourt: NATAL 4000 ft. $\Im \varphi$ in cop. Jan. 1897 (G. Marshall).

Q. Black, the mandibles anteriorly in the middle, the antennal tubercles, the apex of the scape of the antennae and the thorax above and on the sides red; head, thorax and abdomen covered with erect black hairs, the abdomen with close-set recumbent short black pubescence, and apical white pubescent bands on the basal three segments, the bands on the 2nd and 3rd segments medially widely interrupted. Head not wider than the thorax in front, transversely rectangular convex in front, very slightly arched posteriorly, finely and closely punctured; mandibles acutely pointed with a small

preapical tooth on their inner edges; clypeus rounded anteriorly, flat with a small shining tubercle at base. Antennae: 2nd joint of the flagellum twice as long as the 3rd, 3rd and 4th subequal; eye rounded, convex, the vertex arched, the sides of the head behind the eyes well developed. Thorax elongate, broader anteriorly than posteriorly, the sides slightly crenulate, above closely and coarsely punctured, the punctures running into longitudinal striae or fine grooves, posteriorly obliquely sloped; the sides of the median segment carinate; the pleurae smooth, legs shining, intermediate and posterior tibiae with a single row of short distant spines; calcaria short, yellowish-white. Abdomen sessile, ventral carina of the basal segment feebly emarginate as in the 3; 6th segment convex without a pygidial area.

Length ♀ 8 mm.

13. MUTILLA ALECTO, Smith.

Mutilla alecto, Sm., Cat. Hym. B.M., iii, 1855, p. 17 3; André, Wytsman's Gen. Ins. Hym., Fasc. 11, 1903, p. 35.

Guinea & (Coll. W. W. Saunders). Natal? & (Coll. W. W. Saunders).

14. MUTILLA LEUCOPYGA, Klug.

Mutilla leucopyga, Klug, Symb. Phys., 1829, dec. 1, pl. 4, fig. 10 \(\pi \); André, Zeits. Hym. Dipt., ii, pt. 1, 1902, p. 22.

Mutilla opaca, Lep., Hist. Nat. Hym., iii, 1845, p. 624 ♂. Mutilla persephone, Pér., Ann. S.A. Mus., i, 1898, p. 69; id. tom. cit. 1899, pl. 8, figs. 11, 13 ♀ ♂.

NATAL \cite{Q} (Coll. W. W. Saunders). Rhodesia: Mashonaland, Salisbury 5000 ft., and Buluwayo \cite{Q} (G. Marshall).

15. MUTILLA CYTHERIS, Péringuey.

Mutilla cytheris, Pér., Ann. S.A. Mus., i, pt. 2, 1899, p. 372 3.

RHODESIA: Mashonaland, Salisbury 5000 ft. 3 (G. Marshall).

The two succeeding forms have, so far as I can make out, not been previously described. Both so closely resemble *Dolichomutilla guineensis*, Fabr., that they might easily be mistaken for that form; both belong, however,

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to the genus Mutilla and not to Dolichomutilla, Ashmead, as defined by André (Genera Insectorum. P. Wytsman. Hymenoptera).

16. MUTILLA SECRETA, form n.

- N. E. Rhodesia: Loangwa River 1700 ft.: June 7, 1905; and Petauké, Nov. 27, 1905 (S. A. Neave).
- Q. Black shining with sparsely scattered erect white hairs, the abdomen more densely clothed with recumbent black hairs. Head subquadrate closely and coarsely punctured, as wide as the thorax in front; clypeus overhung with a dense fringe of white hairs; mandibles acute, slightly reddish in the middle; eyes ovate, large, closer above to the occiput than below to the base of the mandibles; head behind the eyes rounded and broad. Thorax rectangular, the sides nearly parallel, the pronotum slightly arched anteriorly, the median segment obliquely but steeply sloped posteriorly, the whole thorax above very closely and coarsely punctured; seen from above the intervals between the punctures on the median segment have the appearance of an arched row of short spines, the sides of the thorax nearly smooth with one or two wide reticulations on the mesopleurae, the mesopleurae obliquely bicarinate; legs slender, intermediate and posterior tibiae with a double row of short black spines, the calcaria white. Abdomen sessile; basal segment short immaculate, ventral carina incised in the middle; 2nd segment with two transversely placed pubescent round white spots; 3rd and 4th segments with broad pubescent white bands, that are widely interrupted in the middle on both segments; 6th segment fringed and overhung with white hairs, convex and smooth towards apex with no defined pygidial area, below with a single small median tubercle; 2nd and following ventral segments narrowly testaceous at their apices and sparsely fringed with white hairs.

Length ♀ 10-11 mm.

The specimen from the Loangwa River, June 7, 1905, is marked as the type.

17. MUTILLA DURA, form n.

RHODESIA: Loangwa Valley, Petauké 1700 ft.: Dec. 25, 1905 (S. A. Neave).

 \mathfrak{P} . In general appearance size and markings very closely resembles M. secreta, the form just described. It can be distinguished as follows. Antennae: 2nd joint of the flagellum three times, not twice

as long as the 3rd; thorax: broader posteriorly than anteriorly; abdomen: basal joint slightly longer, its ventral carina twice incised; 3rd segment only with a pubescent interrupted white band above; 4th segment entirely black; pygidial area flat, well defined and punctured, no tubercle on ventral valve of 6th segment.

Length 9 11 mm.

Described from a single specimen.

18. MUTILLA IPHIANASSA, form n.

Rhodesia: East Loangwa District, Petauké 2400 ft.: April 1, 1905 (S. A. Neave).

Q. Black; mandibles at apex, the antennal tubercles and the thorax above a very dark obscure red, this colour on the thorax not extended to the anterior or posterior margins, but leaving an edging of black which is broadest on the median segment. Head and thorax above densely, the abdomen more sparsely clothed with erect brownish hairs; the abdomen with a thin scattered covering also of recumbent black hairs. Head closely and finely punctured, subquadrate slightly broader than long and slightly broader than the thorax anteriorly; mandibles acute; eyes ovate closer to the base of the mandibles below than to the occiput above; antennae: scape shining with a few scattered brown hairs, flagellum opaque, basal two joints minutely but densely pubescent, 1st joint very short, 2nd twice as long as 3rd or 4th. Thorax nearly rectangular coarsely cribrately punctured, very slightly broader posteriorly than anteriorly, arched in front, the sides dentate in the middle, behind which they are slightly emarginate, posteriorly the dorsal surface passes with an even but steep slope to the apex of the median segment; legs short, slender, tibiae of the intermediate and posterior pair of legs with a single row of spines, calcaria very slender, short and white. Abdomen: massive, sessile, finely punctured and shining; 1st segment immaculate, ventral carina thick and deep, strongly incised in the middle; 2nd segment with a triangular spot in the middle at base and a slender medially widely interrupted line of yellowish pubescence on its apical margin above; 3rd segment with a broad similarly interrupted band of like pubescence above; 6th segment shaded by a tuft of long yellowish hairs which hides the comparatively well-defined but small flat transversely striate pygidial area; abdomen beneath covered rather densely with soft reddish-brown hairs.

Length ♀ 8-9 mm.

Described from a single example.

This form has a superficial resemblance to M. alcyone, Péringuey (suspected by Péringuey to be the $\mathfrak P$ of M. exaltata, Smith) in the red-colouring of the thorax which is confined to the dorsal face. In alcyone, however, the basal abdominal segment has an apical whitish patch, the 2nd segment a spot or ovate patch in the centre, and the 3rd and 4th segments similarly coloured bands. In addition, the shape of the head and the ventral carina on the basal abdominal segment are quite different.

19. MUTILLA CRISTATA, form n.

Rhodesia: Mashonaland, Salisbury 5000 ft.: Nov. 1903 (G. Marshall).

3. Totally black and covered with a sparse clothing of erect white hairs which on the abdomen form slight but distinct fringes to the apical margins of the segments; on the legs the white hairs are rather more dense especially on the outside of the tibiae of the intermediate and posterior legs, the calcaria of which are also white; wings hyaline at base then gradually infuscate and on the forewings with a sharply marked broad terminal fuscous margin that has in certain lights a rich purple effulgence. Head broader than long, slightly broader than the thorax in front, vertex behind the ocelli raised into a blunt cone-shaped prominence, eyes oval deeply emarginate, head behind the eyes moderately developed; mandibles very broad towards the apex, tridentate; antennae moderately stout, 1st joint of the flagellum short, 2nd a little longer, 3rd slightly longer than the 2nd. Thorax moderately long more or less rectangular, prothorax sharply truncate in front, mesonotum short, convex; scutellum longer than broad rounded posteriorly; median segment roundly oblique and declivous; forewings with two wellmarked cubital cells, the 3rd cubital cell faintly traced; legs slender the tibiae without spines. Abdomen long, the basal segment petiolate at base nodose at apex, the 2nd segment broadest in the middle, the others decreasing gradually to the 7th. Head and thorax closely and very coarsely punctured cribrate; median segment with six somewhat irregular longitudinal carina, the middle two of which do not extend to the apex, the intervals between the carina coarsely reticulate. Abdomen finely, closely and regularly punctured except on the node of the basal segment where the punctures are large and coarse, ventral carina of this segment very slight trifid towards the apex.

Length & 12 mm. Exp. 20 mm.

Described from a single example.

This remarkable form has the appearance of a *Dasylabris*, but the emarginate eyes and tridentate mandibles do not allow of its being entered under that genus. The shape of the head and the multicarinated median segment serve to distinguish it from all African forms of *Mutilla* known to me.

20. MUTILLA IPHONOE, form n.

NATAL (Coll. W. W. Saunders).

Q. Black, basal two-thirds of the mandibles, antennal tubercles, apex of scape, basal two joints of the flagellum of the antennae and the thorax dorsally and on the sides red. Head, thorax and abdomen covered with sparsely scattered erect yellowish hairs, the basal abdominal segment with an apical triangular patch in the middle above the 2nd, 3rd and 6th segments with dorsal, and the 2nd to the 6th segment with ventral bands or fringes of similar pubescence. Head subquadrate broader than long and a little broader than the thorax, very closely and somewhat coarsely punctured; mandibles somewhat obtuse at apex, antennal tubercles rounded, prominent: eyes placed rather forward equidistant from the occiput and the base of the mandibles, head well developed behind the eyes. rectangular not broader or narrower posteriorly than anteriorly above coarsely punctured the sides crenulate, the pronotum slightly arched in front; the median segment abruptly truncate, the posterior angles above well marked the margin with a row of five posteriorly-pointed long spines in the middle and two much shorter ones on each side at the angles. Abdomen more finely punctured than the thorax, basal segment short, with its ventral carina deep and incised in the middle, 1st to the 6th segment smooth along their bases, sparsely punctured along their posterior margins, the pygidial area well defined very firmly punctured.

Length 9 mm.

Described from a single example.

21. MUTILLA LYSIPPE, form n.

RHODESIA: Eastern Loangwa District, Petauké 2400 ft. 2: Feb. 22, 1905 (S. A. Neave).

Q. Head, legs and abdomen black, thorax dark red. Head, thorax and abdomen covered with sparsely scattered erect black hairs, the abdomen in addition with close thick recumbent black pile, two small spots transversely on the 2nd segment above, a band on the 3rd segment above, long fringes on the 2nd to the 6th ventral

segment continued round the base of the latter above, of pale vellowish pubescence, the legs thickly studded with erect pale yellow hairs, the tibial calcaria pale yellow, the tibiae above with a double row of short reddish-brown spines. Head small, about as broad as the thorax closely punctured somewhat lenticular, three times as broad as long, the front faintly convex, the occiput arched; mandibles acutely pointed with a short blunt tooth on their inner margins, antennae opaque, antennal tubercles rounded, not prominent 2nd joint of the flagellum about a third longer than the 3rd or 4th joints; eyes large prominent, their lower orbits closer to the bases of the mandibles than their upper orbits to the occiput; head behind the eyes not much developed, rounded. Thorax from above rectangular dorsally longitudinally deeply carinate striate, the pronotum arched in front, the humeral angles rounded, median segment posteriorly vertically truncate, its posterior face vertically carinate, the apical margin above toothed, the teeth, which are continuations of the irregular longitudinal carinae covering the dorsal surface of the thorax, short. Abdomen massive above closely punctured, beneath: the bases of segments 2 to 6 very finely transversely striate, their apices punctured, ventral carina of basal segment very slightly raised twice incised, pygidial area well defined, slightly convex, longitudinally striate.

Length 9 11 mm.

Described from a single example.

22. MUTILLA RUFOCORONATA, form n.

NATAL (Coll. W. W. Saunders).

3. Black; the apical half of the mandibles, the tubercles and scape of the antennae and a broad transverse band on the posterior half of the head dark red, the thorax and legs brighter red. thorax and abdomen with sparsely scattered erect black hairs, the legs with shorter similar yellowish hairs; the apical margins of the 1st and 3rd abdominal segments each with a broad transverse band of golden pubescence, the apical margin of the 2nd segment with a narrow fringe of the same pubescence, beneath which the segment is bright testaceous red. Head rounded, not wider than the thorax, finely punctured; eyes large slightly convex, their upper orbits as far from the posterior angle of the occiput as their lower orbits from the base of the mandibles; mandibles acute at apex, simple; 2nd and 3rd joints of the antennae subequal. Thorax closely punctured, the punctures running into longitudinal striae, wider anteriorly than posteriorly, the apex roundly truncate; legs robust, the intermediate and posterior tibiae with a single row of short spines; the calcaria

white. Abdomen subsessile as long as the head and thorax united closely punctured above; ventral carina of basal segment well marked, truncate posteriorly; 6th segment convex without a pygidial area.

Length ♀ 7 mm.

Described from a single example.

23. MUTILLA LOANGWANA, form n.

RHODESIA: Loangwa District, Petauké 2400 ft.: April 1, 1905 (S. A. Neave).

3. Black; the third and succeeding segments of the abdomen very dark ferruginous red; wings dark shining purple. Head not so wide as the thorax, not much developed behind the eyes; with somewhat sparse long black hairs on the vertex, front and underside; mandibles large and powerful, smooth and shining, armed with a small tooth medially on their edges, apex acute; clypeus slightly convex, smooth and shining, anteriorly widely emarginate; antennae comparatively short and stout, scape punctured and clothed with short hairs, flagellum with the 2nd, 3rd and 4th joints subequal; front above the antennae, vertex and sides of the head coarsely punctured, the sculpturing obscured by long hairs; ocelli not prominent; eyes rather small neatly triangularly emarginate on their inner orbits. Thorax broad and massive, very coarsely punctured and somewhat thickly covered with long black hairs; pronotum very short, posteriorly widely arched; mesonotum slightly convex, with six longitudinal carinae, none of which reach the anterior margin, the medial four in pairs with a deep groove between each pair; scutellum highly conical, divided by a deep smooth excavation from the mesonotum, median segment remarkably massive and broad, broader than long, very coarsely cribrate, apically truncate, two short longitudinal carinae from base down the middle ending in a loop before attaining the edge of the truncation; sides of the median segment sharply defined and carinate. Wings broad; forewing with three cubital cells; tegulae black, rounded, convex, covered with more or less arcuate or curved fine striae. Legs black; intermediate and posterior tibiae thickly clothed with long black hair. Abdomen: sessile, massive; basal segment more or less cupuliform, closely punctured, and distinctly subapically constricted by a broad but shallow sulcation, entirely clothed with long black hairs, beneath with a short straight highly raised wedge-shaped carina; second segment smooth shining, remotely and finely punctured above, beneath with large scattered punctures, fringed along upper

and under margin by stiff black hairs; remaining segments closely and finely punctured, more or less densely covered with long reddish hairs, that on the apical segment turn to black.

Length & 21 mm. Exp. 46 mm.

Described from a single example.

Both in coloration and in sculpture unlike any African form known to me. It has, however, a distant resemblance to the males of the "sexmaculata" group of mutilla from India.

24. MUTILLA CLOANTHA, Péringuey.

Mutilla nigripennis, Sm. (nec. Oliv.), Cat. Hym. B.M., iii, 1855, p. 19.

Mutilla cloantha, Pér., Ann. S.A. Mus., i, 1898, p. 88.

NATAL & (W. W. Saunders Coll.)

25. MUTILLA TETTENSIS, Gerstaecker.

Mutilla tettensis, Gerst., Monats. Akad. Wiss. Berlin, 1857, p. 511; id. Peters, Reise n. Mozamb., v, 1862, p. 488 q, pl. 31, fig. 7; Sich. and Radosz., Hor. Soc. Ent. Ross., vi, 1869, p. 254; André, Wytsman's Gen. Ins. Hym., Fasc. 11, 1903, p. 38.

NATAL $\mathcal{L}(W.\ W.\ Saunders\ Coll.)$.

26. Dasylabroides idia, Péringuey.

Mutilla idia, Pér., Ann. S.A. Mus., i, pt. 2, 1897, p. 360 \(\text{Dasylabroides idia}, \text{ André, Wytsman's Gen. Ins. Hym., 1903, p. 23.} \)

Rhodesia: Mashonaland, Salisbury 5000 ft. $\cite{G.A.K.}$ Marshall).

A single specimen that agrees well with Péringuey's description.

27. Dasylabroides inconspicua, Smith.

Mutilla inconspicua, Sm., Descr. New sp. Hym. B.M., 1879, p. 191 ♂ ♀.

Dasylabroides inconspicua, André, Wytsman's Gen. Ins. Hym., 1903, p. 23.

NATAL & (Coll. W. W. Saunders); Rhodesia: Melsetter, Gazaland 3600 ft. & (G. Marshall).

28. MYRMILLA AFRICANA, form n.

NATAL (Coll. W. W. Saunders).

¿. Black and shining; the apices of the mandibles, the antenna! tubercles, apex of the scape, 2nd joint of the flagellum of the antennae, the pro- and mesonotum, and scutellum brick red. Head, thorax, legs and abdomen covered with sparsely scattered erect white hairs. Head finely punctured broader than long and slightly broader than the thorax, mandibles acutely pointed, apical half longitudinally grooved, two preapical blunt teeth on the inner margin; antennae opaque, 2nd and 3rd joints of the flagellum subequal; eyes oval, entire, slightly convex. Thorax rounded in front, posteriorly roundly truncate, finely punctured, the median segment reticulate; wings flavo-hyaline, forewing with the stigma small, the radial cell short and wide, two complete cubital cells, the third cubital faintly traced, the 2nd recurrent nervure present, terminating well beyond the 2nd cubital cell; legs slender, tibial calcaria elongate. Abdomen nearly smooth, only very sparsely and finely punctured; 1st segment with the carina not much raised.

Length & 6 mm. Exp. 11 mm.

Described from a single example.

NOTE.—The manuscript of this memoir gave the name albicans to the above species; but the specimen itself was distinctly labelled "africana, Bingham &, Type."—E. B. P.

29. Dolichomutilla vetustata, form n.

S. Rhodesia: Mt. Kapsuku, nr. Feira 3400 ft. 3: May 20, 1904; and N.E. Rhodesia, East Loangwa Dist., Petauké 2400 ft. 33: March 1 and 17, 1905 (S. A. Neave). The specimen bearing the date March 17, 1905, is marked as the type.

Jet black, the face in front somewhat sparsely clothed with long white hairs, the thorax with scattered erect black hairs the basal five abdominal segments fringed on their apical margins laterally with long white hairs; wings dark fuscous with a magnificent purple effulgence. Head, pro- and mesonotum, scutellum and post-scutellum very densely and somewhat coarsely punctured; median segment reticulate, the reticulations large even and deep; abdomen closely but more finely punctured with the punctures shallower than on the thorax, on the middle of the segments above the punctures are sparse, the segments showing more or less of a smooth area, intermediate and posterior tibiae without spines. Head narrower

than the thorax, transverse, not much produced behind the eyes; mandibles broad, longitudinally grooved, with a preapical tooth on the inner edge; eyes convex, only slightly indented on the inner orbits, antennae stout, 2nd joint of flagellum half as long again as the 3rd; thorax slightly narrowed in front; scutellum raised into a conical large tubercle; median segment very oblique posteriorly slightly convex, sharply carinate on each side; abdomen subsessile, 1st segment short, its ventral carina well raised, its edge vertically sinuate.

Length & 13-14 mm. Exp. 25-28 mm.

This form may be a variety of *D. atrata*, Linn., but the description of the latter speaks of a white transverse band on the abdomen, in the former the segments 1–5 are only laterally fringed with white.

30. Dolichomutilla guineensis, Fabr.

Mutilla guineensis, Fabr., Ent. Syst., ii, 1793, p. 367 ; Lep. Hym., iii, p. 640 \updownarrow .

Rhodesia: East Loangwa, Petauké 2400 ft. ? (S. A. Neave).

A single \angle.

31. Dolichomutilla sycorax, Smith.

Mutilla sycorax, Sm., Cat. Hym. B.M., iii, 1855, p. 19 ♀.

Mutilla guineensis, Gerst. (nec. Fabr.), Monats. Akad. Wess. Berlin, 1857, p. 511 ♂; idem. Peters Reise n. Mozamb., Zool., v, 1862, p. 486, pl. 31, figs. 4 and 5 ♂ ♀; André, Zeits. Hym. Dipt., i, 1901, p. 339.

NATAL $\cite{Gold.}$ W. Saunders); Rhodesia: Mashonaland, Salisbury 5000 ft. $\cite{Gold.}$ (G. Marshall); Lagos $\cite{Gold.}$ (J. A. Cremer).

32. Dolichomutilla neavei, form n.

N.E. Rhodesia: East Loangwa District, Petauké 2400 ft. β : Dec. 28 and 31, 1904 (S. A. Neave).

The specimen captured Dec. 28, 1904, is marked as the type.

J. Black and shining; the mandibles close to the apex, the pro- and mesonotum, scutellum and tegulae dark red; the head, thorax and abdomen covered with long erect black hairs; the mandibles beneath, the lower portion of the inner orbits, a fringe posteriorly on the scutellum and another posteriorly on the apical abdominal segment

covered with silky pale yellow hairs. There are besides many scattered whitish yellow erect hairs on the head posteriorly, on the sides of the median segment, on the basal segment of the abdomen, and on the apical three or four ventral segments. Abdomen above with two large rounded spots transversely on the 2nd segment and broad, medially broadly interrupted, bands of silky short white pubesence on the 3rd and 4th segments. Wings fuscous the terminal margins broadly and costa narrowly of the forewings darker fuscous. Head densely punctured, much broader than long, but much narrower than the thorax anteriorly, the face flat, slightly concave, not much developed behind the eyes, obliquely rounded. Mandibles and clypeus highly polished, smooth, the former acute at apex with a strong inner preapical tooth; eyes elongate strongly emarginate on the inner side above; antennae opaque, 2nd and 3rd joints subequal. Thorax massive anteriorly, the pro- and mesonotum and scutellum closely and coarsely punctured, the tegulae smooth and shining: mesonotum with three longitudinal short carinae, the middle carina the longest, and a deep longitudinal groove on either side, these grooves not extended to the anterior margin of the mesonotum; scutellum with a short longitudinal carina raised into a tubercle at apex; median segment coarsely reticulate, the sides sharply carinate, the posterior face sloping to the apex; wings: forewing with three cubital cells; legs without spines. Abdomen subsessile, coarsely punctured, the 2nd segment with a central smooth unpunctured highly polished area.

Length & 17 mm. Exp. 33 mm.

Resembles in colouring Mutilla purpurata, but the markings on the abdomen are quite different, and moreover it belongs to a different genus or subgenus.

33. DASYLABRIS NYCTIMENE, Péringuey.

Mutilla nyctimene, Pér., Ann. S.A. Mus., i, 1898, p. 91 3. Dasylabris nyctimene, André, Wytsman's Gen. Ins. Hym., Fasc. 11, 1903, p. 67.

Rhodesia: Mashonaland, Salisbury 5000 ft. 3 (G. Marshall.)

34. DASYLABRIS MEPHITIS, Smith.

Mutilla mephitis, Sm., Cat. Hym. B.M., iii, 1855, p. 21 ♀. Dasylabris mephitis, André, Zeits. Hym. Dipt., 1901, p. 312 ♀.

NATAL: Durban $\mathcal{L}(F. Muir)$.

35. Dasylabris ate, form n.

Rhodesia: Mashonaland, Salisbury, May 1905 (G. Marshall).

Q. Black, the legs red; the head, thorax and abdomen closely punctured and covered with erect white hairs which are most prominent on the legs; the abdomen with transverse pubescent white bands on the apical margins of the 1st and 2nd segments, the latter band dilated in the middle, the 5th segment with a thick apical fringe of white hairs. Head broader than the thorax in front, longer than broad, occiput and cheeks behind the eyes rounded; mandibles acute at apex, antennae short, 2nd joint of flagellum much longer than the 1st and slightly longer than the 3rd, eyes oval convex, placed on the sides of the head, equidistant above and below from the lateral angle of the head and from the base of the mandibles. Thorax oval, broadest in the middle, sides convex, not excavate, punctured as above. Abdomen as long as the head and thorax united; basal segments petiolate and nodose at apex, ventral carina twice indented, 2nd segment very long and massive, pygidial area small and hidden by the fringe of white hairs at the apex of the 5th segment.

Length ♀ 6 mm.

Described from a single example.

This is the smallest form of the genus known to me.

36. DASYLABRIS INFLATA, André.

Mutilla (Dasylabris) inflata, André, Zeits. Hym. Dipt., i, 1901, p. 313.

RHODESIA: Gazaland and Upper Buzi River 3500 ft. \(\varphi\) (G. Marshall).

37. STENOMUTILLA CAPICOLA, Péringuey.

Mutilla capicola, Pér., Ann. S.A. Mus., i, 1898, p. 47 ♀ ♂. Mutilla (Stenomutilla) capicola, André, Zeits. Hym. Dipt., i, 1901, p. 320♀ ♂.

Rhodesia: Mount Kapsaku 2400 ft. & (S. A. Neave); Salisbury 5000 ft. & (G. Marshall).

38. STENOMUTILLA CLELIA, Péringuey.

Mutilla clelia, Pér., Ann. S.A. Mus., i, 1899, p. 366 3.

Mutilla (Stenomutilla) clelia, André, Zeits. Hym. Dipt., i, 1901, p. 322 3.

N.E. RHODESIA: East Loangwa District, Petauké 2400 ft.: ♂ Feb. 21, 1905; ♀ Jan. 27, 1905 (S. A. Neave).

The 3 specimen has the wings torn off. The 4, so far as I know, has not been previously described.

Q. Black, the mesonotum of the thorax very obscurely dark red. Head, thorax and abdomen coarsely densely cribrately punctured and covered sparsely with stiff, erect, black hairs, the punctures on the 2nd abdominal segment are elongate and run into heavy, coarse, longitudinal striations, the clypeus, lower part of the face, the scape of the antennae and the legs have a more or less dense clothing of silvery white hairs mixed with the black; transverse bands at the apices of the 1st and 2nd abdominal segments of pale yellowish white pubescence. Head transverse, broader than long, and not so broad as the thorax in front; mandibles acute at apex, clypeus highly polished and shining; antennae stout, 2nd joint of the flagellum somewhat longer than the 3rd; eyes: convex, prominent, placed in the middle of the sides of the head equally distant from the base of the mandibles and from the posterior lateral angle of the head. Thorax short, of the same shape as in the &, transverse anteriorly, the sides parallel for a short distance then obliquely inclined towards each other, the apex truncate, the pleurae excavate, coarsely cribrate not smooth. Abdomen: basal segment petiolate, nodose at apex, the ventral carina not prominent, 2nd segment very long and massive, apical segment convex above, without a pygidial area.

Length ♀ 10 mm.

39. STENOMUTILLA BEROE, Péringuey.

Mutilla beroe, Pér., Ann. S.A. Mus., i, 1898, p. 48 ♀. Stenomutilla beroe, André, Wytsman's Gen. Ins. Hym., Fasc. 11, 1903, p. 68 ♀.

NATAL: Lake Umkomaas & (G. Leigh); RHODESIA: Mashonaland, Salisbury 5000 ft. & & (G. Marshall); East Loangwa, Petauké 2400 ft. (S. A. Neave).

3. Black, the thorax red. Head, thorax and abdomen covered with erect black hairs, the base of the mandibles, the front of the scape of the antennae, the occiput, the median segment posteriorly, the legs and transverse bands on the apices of the basal three abdominal

segments with long whitish yellow hairs; the black hairs along the apical margins of the 3rd to the 6th abdominal segments forming fringes and tufts; wings dark fuscous with a purple effulgence, head from above transverse, extended well behind the eyes, rounded and closely punctured all over; mandibles broad at apex with a preapical inner tooth and a blunt tooth near the base on the outer edge. Clypeus smooth shining excavate, a strong carina between the bases of the antennae, eyes somewhat prominent, convex, the lower orbit closer to the base of the mandible than the upper orbit to the lateral posterior edge of the occiput, antennae slender, 2nd joint of the flagellum shorter than the 3rd, which is very slightly longer than the Thorax elongate oval, pro- and mesonotum and the pleurae, the scutellum and postscutellum coarsely punctured cribrate, tegulae of the wings small and smooth, median segment rounded reticulate, legs slender, punctured, intermediate and posterior tibiae with single rows of strong spines, basal joint of the posterior tarsi flattened, triangular; wings ample, forewing with three cubital cells. men elongate, basal segment very long, petiolate, nodose at apex; ventral carina simple not much raised extending about half the length of the segment from base, beyond it near the apical margin of segment there are two hollows or pits bounded and divided by slender short carina.

Length & 16-19 mm. Exp. 28-32 mm.

Described from 7 3 examples.

40. ODONTOMUTILLA ANGULATA, Smith.

Mutilla angulata, Sm., Descr. New sp. Hym. B.M., 1879, p. 190 3.

Mutilla horrida, Sm., Descr. New sp. Hym. B.M., 1879, p. 192 ♀.

Odontomutilla angulata, André, Zeits. Hym. Dipt., i, 1901, p. 335.

(angulata \mathcal{F} , horrida \mathcal{F}).

NATAL \(\text{(\$W\$. \$W\$. Saunders Coll.}; G. F. Leigh; F. N. Brown); Rhodesia: Salisbury 5000 ft. \(\phi \) (G. Marshall); East Loangwa, Petauké 2400 ft. \(\phi \) (S. \(A. \) Neave).

I have provisionally placed a single \circ from Petauké under O. angulata with much doubt. It is very much larger, more massive, looking at first sight very like a Barymutilla, but the head is not nearly so broad as the thorax in front, and the median segment is angulated posteriorly. In sculpture and markings it is practically

identical so far as can be seen (the specimen is much rubbed) with \$ 0. angulata. However, it is quite possibly distinct or perhaps it is the 2 of the next form, O. alienata.

41. ODONTOMUTILLA ALIENATA, form n.

NATAL or O. R. Colony & 1894-99 (F. N. Brown).

3. Black, the pro- and mesonotum, the upper half of the pro- and mesopleurae, the scutellum and postscutellum red; the head, thorax legs and base and sides of the abdomen covered with short erect black hairs; the abdomen with a transverse broadly interrupted narrow pubescent white band on the apical margins of the 1st and 3rd segments; wings fuscous, tegulae yellowish red. Head not so broad as the thorax in front, transverse; mandibles acuminate at apex with a preapical blunt tooth on the inner margin, antennae stout, 1st and 2nd joints of the flagellum short subequal, 3rd joint much longer than the 2nd; eyes oval, deeply emarginate, head behind the eyes not much developed, rounded. Thorax short and broad, truncate anteriorly; scutellum broad flat, the lateral edges recurved, pointed, almost dentate posteriorly; median segment short and sloping with very large conical lateral projections, one on each side posteriorly; tegulae large, their apical edges recurved; forewings with two cubital cells and one recurrent nervure; legs stout with a double row of long spines on the intermediate and posterior tibiae. Abdomen sessile, about as long as the head and thorax united, basal segment short, its ventral carina deep, bi-indented. Head and thorax coarsely cribrately punctured, the punctures deeper and coarser on the mesonotum posteriorly and on the scutellum, median segment coarsely reticulate, the reticulations very wide; abdomen shining, coarsely punctured except on the middle and apical margins of the segments which are smooth and highly polished.

Length & 13. Exp. 21 mm.

This form very closely resembles the 3 of O. angulata, Smith, from which, however, it can be distinguished by the form of the median segment, which is much shorter than in O. angulata, the posteriorly produced lateral angles more massive and situated lower down; in O. angulata the pronotum is red only along the upper edge, in the present form it is red throughout; the wings in angulata are fusco-hyaline, in alienata very much darker with a purple effulgence.

Described from a single specimen of which the South

African locality is unfortunately doubtful,

42. Odontomutilla Rhua, form n.

Rhodesia: Mashonaland, Salisbury 3: Nov. 1903 (G. Marshall).

3. Head, thorax, basal and apical segments of the abdomen black. abdominal segments 2-6 ferruginous red; wings very dark fuscous with a purple effulgence. Head, thorax basal and apical two abdominal segments covered with erect black hairs, the legs and sparse irregular apical fringes, dorsally and ventrally to the 2nd, 3rd, 4th and 5th abdominal segments with snow-white hairs. Head narrower than the thorax in front, transverse, mandibles acute at apex with a blunt preapical tooth on the inner edge; antennae stout, 1st and 2nd joints of the flagellum short, the 2nd slightly the longer, 3rd and 4th subequal both much longer than the 2nd, eyes oval deeply emarginate, head behind the eyes moderately developed, the occiput not transverse posteriorly, bluntly angulated. Thorax short the pronotum truncate anteriorly, the mesonotum slightly convex, the scutellum transversely rectangular, truncate posteriorly; median segment short, obliquely and steeply sloped with lateral posteriorly conical projections or teeth; forewings with two cubital cells and one recurrent nervure; tegulae large oval; legs moderately stout intermediate and posterior tibiae without distinct spines. Abdomen sessile as long as the head and thorax united, basal segment very short, its ventral carina not much raised, dentate at base. and thorax coarsely cribrately punctured; median segment with broad reticulations; abdomen shining more finely and sparsely punctured.

Length of 11 mm. Exp. 21 mm.

This form is unlike any Odontomutilla known to me, and has a coloration that is common in the males of many true Mutillas.

Described from a single example.

43. Odontomutilla erinnyis, Péringuey.

Mutilla erinnyis, Pér., Ann. S.A. Mus., i, 1898, p. 92 3. Rhodesia: East Loangwa, Petauké 2400 ft. 3 (S. A. Neave).

44. Odontomutilla notata, Lepeletur St. Fargeau.

Mutilla notata, Lepel., Hist. Nat. Hym., iii, 1845, p. 600; André, Wytsman's Gen. Ins. Hym., Fasc. 11, 1903, p. 27. CAPE OF GOOD HOPE ♀ (Coll. W. W. Saunders).

45. BARYMUTILLA PYTHIA, Smith.

Mutilla pythia, Sm., Cat. Hym. B.M., iii, 1855, p. 18 \(\text{Ω}. \)
Mutilla clelia, Pér., Ann. S.A. Mus., i, pt. 3, 1899, p. 443 \(\text{Ω}. \)
Mutilla cecilia, Pér., Ann. S.A. Mus., ii, pt. 5, 1901, p. 132 (note).

Barymutilla pythia, André, Zeits. Hym. Dipt., i, 1901,

p. 335 ♂ ♀.

Rhodesia: East Loangwa, Petauké 2400 ft. ? (S. A. Neave).

46. BARYMUTILLA CEPHEUS, Smith.

Mutilla cepheus, Sm., Cat. Hym. B.M., iii, 1855, p. 18 \(\text{L.} \) Barymutilla cepheus, André, Wytsman's Gen. Ins. Hym., Fasc. 11, 1903, p. 32.

Rhodesia: East Loangwa, Petauké 2400 ft. $\[\]$ (S. A. Neave); var., Manica, Mpudzi River 3000 ft. $\[\]$ (G. Marshall).

The variety collected by Mr. Marshall is a larger, heavier insect, with the thorax a much brighter red, but the pubescent markings on the abdomen are identical with that of typical *cepheus*, Smith, and the shape of the head, thorax and abdomen and the sculpture are the same.

47. BARYMUTILLA DESPICATA, form n.

Rhodesia: Mashonaland, Umfuli River \circ : Nov. 1895 (G. Marshall), in the F. N. Brown Collection.

Q. Black, the thorax dark red; head thorax and abdomen with abundant erect black hairs; the clypeus shaded with yellow hairs; the front of the scape of the antennae, the head beneath, a fringe along the occiput, the pleurae of the thorax, the legs, the sides of the abdomen, posterior fringes to the ventral segments 2 to 5, and the pygidium clothed with silvery hairs; basal segment of the abdomen above with lateral quadrate spots on its posterior margin and a transverse band on the third segment, which is widely interrupted in the middle, of close set white pubescence. Head, thorax and abdomen coarsely, closely and deeply punctured, the punctures on the head and thorax forming short irregular carinae. Head not quite so wide as the thorax in front, transverse, produced behind the eyes; mandibles tridentate; antennal tubercles smooth, antennal hollows bounded above by sharp carinae that extend on each

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side to the lower orbits of the eyes; antennae stout, the 2nd joint of the flagellum a little longer than the 3rd, the 3rd and 4th subequal; eyes oval situated midway between the lateral angles of the occiput and the base of the mandibles. Thorax truncate in front, the sides nearly parallel, slightly narrowed posteriorly, bluntly tuberculate in the middle, thorax posteriorly truncate; legs stout, posterior tibiae with a single row of four or five long spines. Abdomen sessile, very massive, basal segment disciform, short, ventral carina short, bluntly dentate in the middle, 2nd segment long beneath, longitudinally but very shortly carinate; pygidium convex.

Length ♀ 17 mm.

Described from a single example.

48. BARYMUTILLA COMPARATA, Smith.

Mutilla comparata, Sm., Descr. New. sp. Hym. B.M., 1879, p. 191.

Barymutilla comparata, André, Wytsman's Gen. Ins. Hym., Fasc. 11, 1903, p. 32.

NATAL \mathcal{L} (W. W. Saunders Coll.).

49. BARYMUTILLA COMPARATA, Smith, var. offecta, var. n.

NATAL: Durban $\mathcal{L}(G.\ F.\ Leigh)$; Rhodesia: Mashonaland, Salisbury 5000 ft. $\mathcal{L}(G.\ F.\ Leigh)$; Rhodesia: Mashonaland, Salisbury 5000 ft. $\mathcal{L}(G.\ F.\ Leigh)$; Rhodesia: Mashonaland, Salisbury 5000 ft. $\mathcal{L}(G.\ F.\ Leigh)$; Rhodesia: Mashonaland, Salisbury 5000 ft. $\mathcal{L}(G.\ F.\ Leigh)$; Rhodesia: Mashonaland, Salisbury 5000 ft. $\mathcal{L}(G.\ F.\ Leigh)$; Rhodesia: Mashonaland, Salisbury 5000 ft. $\mathcal{L}(G.\ F.\ Leigh)$; Rhodesia: Mashonaland, Salisbury 5000 ft. $\mathcal{L}(G.\ F.\ Leigh)$; Rhodesia: Mashonaland, Salisbury 5000 ft. $\mathcal{L}(G.\ F.\ Leigh)$; Rhodesia: Mashonaland, Salisbury 5000 ft. $\mathcal{L}(G.\ F.\ Leigh)$; Rhodesia: Mashonaland, Salisbury 5000 ft. $\mathcal{L}(G.\ F.\ Leigh)$; Rhodesia: Mashonaland, Salisbury 5000 ft. $\mathcal{L}(G.\ F.\ Leigh)$; Rhodesia: Mashonaland, Salisbury 5000 ft. $\mathcal{L}(G.\ F.\ Leigh)$; Rhodesia: Mashonaland, Salisbury 5000 ft. $\mathcal{L}(G.\ F.\ Leigh)$; Rhodesia: Mashonaland, Salisbury 5000 ft. $\mathcal{L}(G.\ F.\ Leigh)$; Rhodesia: Mashonaland, Salisbury 5000 ft. $\mathcal{L}(G.\ F.\ Leigh)$; Rhodesia: Mashonaland, Salisbury 5000 ft. $\mathcal{L}(G.\ F.\ Leigh)$; Rhodesia: Mashonaland, Salisbury 5000 ft. $\mathcal{L}(G.\ F.\ Leigh)$; Rhodesia: Mashonaland, Salisbury 5000 ft. $\mathcal{L}(G.\ F.\ Leigh)$; Rhodesia: Mashonaland, Salisbury 5000 ft. $\mathcal{L}(G.\ F.\ Leigh)$; Rhodesia: Mashonaland, Salisbury 5000 ft. $\mathcal{L}(G.\ F.\ Leigh)$; Rhodesia: Mashonaland, Salisbury 5000 ft. $\mathcal{L}(G.\ F.\ Leigh)$; Rhodesia: Mashonaland, Salisbury 5000 ft. $\mathcal{L}(G.\ F.\ Leigh)$; Rhodesia: Mashonaland, Salisbury 5000 ft. $\mathcal{L}(G.\ F.\ Leigh)$; Rhodesia: Mashonaland, $\mathcal{L}(G.\ F.\ Leigh)$; Rhodesi

The example from Salisbury is marked as the type of the following description—

Q. In form and sculpture identical with B. comparata, Smith, differs only in that the 2nd abdominal segment is not unmarked but bears two parallel round pubescent white spots on its apical margin, one on each side of the middle, from each of which a short very slender line of similar pubescence extends outwards.

Length ♀ 12-14 mm.

Family SCOLIIDAE.

1. Scolia (Discolia) Cyanea, Lepeletier.

Scolia cyanea, Lepel., Hist. Nat. Ins. Hym., iii, 1845, p. 525 \$\frac{7}{3}\$; Burm., Abh. naturf. Ges. Halle., i, pt. 4, 1853, p. 38 \$\frac{7}{3}\$; Bingh. A.M.N.H. (7), ix, 1902, p. 345. Scolia (Discolia) cyanea, Sauss. and Sich., Cat. Spec. Gen. Scol., 1864, p. 81 \$\frac{7}{3}\$.

NATAL $\mathcal{F} \subsetneq (Coll. W. W. Saunders)$; Durban $\mathcal{F} (G. F. Leigh)$.

2. Scolia (Discolia) melanaria, Burmeister.

Scolia melanaria, Burm., Abh. naturf. Ges. Halle., i, pt. 4, 1853, p. 38 ♂; Gerst. Peters Reise n. Mozamb., Zool., v, 1862, p. 494 ♀ ♂; Bingh., A.M.N.H. (7), ix, 1902, p. 344.

Scolia (Discolia) melanaria, Sauss. and Sich., Spec. Gen. Scol., 1864, p. 82 \(\frac{1}{2} \).

Discolia ruficornis, var. melanaria, Grib., Mem. Acad. Sci. Bolog. (3), iv, 1896, p. 47.

GABOON \mathcal{J} , NATAL \mathcal{J} (Coll. W. W. Saunders); RHODESIA: East Loangwa, Petauké 2400 feet \mathcal{J} (S. A. Neave).

3. Scolia (Discolia) ruficornis, Fabricius.

Scolia ruficornis, Fabr., Ent. Syst., ii, 1793, p. 230; Gerst. v. d. Deck, Reise in Ost. Afr., 1873, p. 334 ♀ ♂; Bingh. A.M.N.H. (7), ix, 1902, p. 244. Scolia (Discolia) ruficornis, Sauss. and Sich., Cat. Spec. Gen. Scol., 1864, p. 85♀♂.

Without locality, but probably NATAL $\Im \circlearrowleft (Coll\ W.\ W.\ Saunders)$; Rhodesia: East Loangwa, Petauké 2400 ft. $\Im (S.\ A.\ Neave)$.

One pair β and β from the Saunders collection have the flagellum of the antennae (except the basal joint) bright vellow, not red, and the β of this pair has the front of the head dusky red. It is quite possibly distinct, but then they are both without locality.

4. Scolia (Discolia) terminalis, Saussure.

Scolia (Discolia) terminalis, Sauss., Ann. Soc. Ent. Fr. (3), vi, 1858, p. 207 & 3; id. and Sich., Spec. Gen. Scol., 1864, p. 95.

Cape of Good Hope 3 (Coll. W. W. Saunders); Rhodesia: Hill near Fort James 4–5000 ft. \cite{Gamma} (S. A. Neave).

Bears a very close resemblance to the Oriental *Liacos* (*Triliacos*) analis, Fabr., but is a true *Scolia* with only one discoidal cell.

5. Scolia (Discolia) senex, Smith.

Scolia senex, Sm., Cat. Hym. B.M., iii, 1855, p. 94 f. Scolia (Discolia) senex, Sauss. and Sich., Cat. Spec. Gen. Scol., 1864, p. 98 \(\frac{1}{2} \).

Cape of Good Hope \mathcal{J} (Coll. W. W. Saunders); Natal: Estcourt \mathcal{L} (G. Marshall).

A single 3 specimen which I believe to be the type, as the insect was originally described from the Saunders collection and there is no other 3 specimen of the form in the collection of the British Museum that dates back to Smith's day.

6. Scolia (Discolia) Chrysotricha, Burmeister.

Scolia chrysotricha, Burm., Abh. naturf. Ges. Halle., i, pt. 4, 1853, p. 32 ♀; Bingh., A.M.N.H. (7), ix, 1902, p. 345.
Scolia (Discolia) chrysotricha, Sauss. and Sich., Cat. Spec. Gen. Scol., 1864, p. 98 ♀ p.

Without locality, but probably NATAL $\mathcal{J} \subsetneq (Coll.\ W.\ W.\ Saunders)$. One specimen, a \mathcal{J} , has the wings particularly dark, almost fuscous, the yellow confined to a very narrow strip along the basal two-thirds of the costa of the forewing.

7. Scolia (Discolia), dispar, Klug.

Scolia dispar, Klug, Symb. Phys., Dec. 3, 1832, Ins., pl. 26, fig. 1 ♀, fig. 2 ♂; Burtn., Abh. Naturf. Ges. Halle., i, pt. 4, 1853, p. 34 ♀ ♂; Bingh., A.M.N.H. (7), ix, 1902, p. 345.

Scolia (Discolia) dispar, Sauss. and Sich., Cat. Spec. Gen. Scol., 1864, p. 76 \(\frac{7}{2} \).

Scolia lateralis, Klug, Symb. Phys., Dec. 3, 1832. Ins. pl. 26, fig. 3 \(\xi \), fig. 4 \(\xi \), var.

ARABIA \mathcal{L} and var. lateralis Dongola $\mathcal{L} \mathcal{L}$ (Coll. W. W. Saunders).

8. Scolia (Discolia) Alaris, Saussure.

Scolia alaris, Sauss., Ann. Soc. Ent. Fr. (3), vi, 1858, p. 203, ♀ ♂; Bingh., A.M.N.H. (7), ix, 1902, p. 344.

Scolia (Discolia) alaris, Sauss. and Sich., Cat. Spec. Gen. Scol., 1864, figs. 97 and 282 \(\varphi \).

Without locality, but probably NATAL; & not typical (Coll. W. W. Saunders).

9. Scolia (Discolia) micromelas, Sichel.

Scolia (Discolia) micromelas, Sich., Sauss. and Sich; Cat. Spec. Gen. Scol., 1864, p. 82 3.

Rhodesia: Mashonaland, Salisbury 5000 ft. 3 (G. Marshall); East Loangwa, Mbala country (S. A. Neave).

10. Scolia (Discolia) megaera, Saussure.

Lacosi megaera, Sauss., Stett. Ent. Zeit., xx, 1859, p. 180 \(\text{Scolia} \) (Discolia) megaera, Sauss. and Sich., Cat. Spec. Gen. Scol., 1884, p. 90 \(\text{\varphi} \).

NATAL \mathfrak{P} (Coll. W. W. Saunders); near Durban \mathfrak{P} (G. F. Leigh).

The specimen from the Saunders collection is in bad condition, and I am doubtful whether I have identified it correctly.

11. Scolia (Discolia), meridionalis, Saussure.

Lacosi meridionalis, Sauss., Stett. Ent. Zeit., xx, 1859, p. 182 ♀.

Scolia (Discolia) meridionalis, Sauss. and Sich., Cat. Spec. Gen. Scol., 1864, p. 92 \(\text{?}. \)

NATAL: S. of Durban & (G. F. Leigh).

The specimen, which I identify as the \Im of the above form, differs from Saussure's description of the \Im as follows. Head black, not obscure rufo-ferruginous, the emargination of the eyes in front and a line behind them reddish ferruginous, the sides and apical margin of the clypeus also similarly stained. Otherwise in sculpture and pubescence it is identical with *meridionalis* as described by Saussure.

12. LIACOS (TRILIACOS) NIGRITA, Fabricius.

Scolia nigrita, Fabr., Spec. Ins., i, 1781, p. 452 \, \text{.}

Scolia (Liacos) nigrita, Sm., Cat. Hym. B.M., iii, 1855, p. 114 \color.

Liacos (Triliacos) nigrita, Sauss. and Sich., Cat. Spec. Gen.

Scol., 1864, p. 35 \(\frac{1}{2} \) \(\frac{1}{2} \).

Liacos nigrita, Sauss., Grandid. Hist. Madagasc., xx, pt. 1, 1892, p. 227, pl. 5, figs. 11 and 12 \(\varphi \).

NATAL \cite{Gallow} (Coll. W. W. Saunders); Rhodesia: Melsetter, Gazaland \cite{Gallow} (G. Marshall), Natal \cite{Gallow} (G. F. Leigh).

13. Elis (Dielis) dimidiatipennis, Saussure.

Elis dimidiatipennis, Sauss., Mem. Soc. Phys. and Hist. nat. Genève, xiv, pt. 1, 1854 (Mel. Hym.), p. 64 \cong2.

Scolia fenestrata, Sm., Cat. Hym. B.M., iii, 1855, p. 104 \colon. Elis (Dielis) dimidiatipennis, Sauss. and Sich., Cat. Spec. Gen. Scol., 1864, p. 168.

Rhodesia: Mashonaland, Salisbury 5000 ft. (G. Marshall).

14. ELIS (DIELIS) SIGNATA, Smith.

Scolia signata, Sm., Cat. Hym. B.M., iii, 1855, p. 105 ♀. Elis (Dielis) signata, Sauss. and Sich., Cat. Sp. Gen. Scol., 1864, p. 176 ♀.

RHODESIA: East Loangwa, Petauké 2400 ft. 2 \(\rho \) \((S. A. Neave) \); also 1 \(\rho \) 1 \(\rho \) from other Rhodesian localities and 2 \(\rho \) 1 \(\rho \) Salisbury (G. Marshall). The author's name is on a \(\rho \) from Salisbury (1895), which is regarded as the type of the following description.

The \mathcal{J} , which has not before been described closely, resembles the \mathcal{I} , but the head and thorax are densely clothed with short hoary yellowish pubescence that hides the sculpture, the wings are hyaline with only the very faintest tinge of yellow, and the transverse yellow bands on the segments of the abdomen above are very broad and deeply excavated on each side. In the \mathcal{I} these bands are only slightly laterally excavate.

15. ELIS (DIELIS) COLLARIS, Fabricius.

Tiphia collaris, Fabr., Syst. Ent., 1775, p. 354. Scolia thoracica, Fabr., Mant. Ins., i, 1787, p. 281 (nec. Tiphia thoracica, Fabr., Ent. Syst., Suppl., 1798, p. 254). Scolia senilis, Fabr., Ent. Syst., ii, 1793, p. 237.

Scolia hirticollis, Fabr., Syst. Piez., 1804, p. 243.

Scolia vestita, Klug, Symb. Phys., 1832, Ins., pl. 27, fig. 6 \(\text{S.} \). Scolia discolor, Klug, l. c., Ins., pl. 27, fig. 7.

Campsomeris ruficollis, Lepel., Hist. Nat. Ins. Hym., iii, 1845, p. 500.

Elis canesceus, Sauss., Mem. Soc. Phys. and Hist. Nat. Genève, xiv, pt. 1, 1854 (Mel. Hym. i), p. 55.

Elis (Dielis) collaris, Sauss. and Sich., Cat. Spec. Gen. Scol., 1864, pp. 163 and 295 \(\frac{1}{3} \).

EGYPT Q (Coll. W. W. Saunders).

16. ELIS (DIELIS) ALBICOLLIS, Christ.

Sphex albicollis, Christ, Naturg. d. Ins., 1791, p. 260, pl. 26, fig. 1 \copp.

Sphex flavirons, Christ, l. c., p. 261, pl. 26, fig. 3 \(\text{?}. \)

Tiphia thoracica, Fabr., Ent. Syst., Suppl., 1798, p. 254.

Campsomeris aureicollis, Lepel., Hist. Nat. Ins. Hym., iii, 1845, p. 499.

Scolia eriophora, Klug, Symb. Phys., 1832, pl. 27, fig. 5 3. Elis (Dielis) coelebs, Sichel, Sauss. and Sich., Cat. Spec. Gen. Scol., 1864, p. 184.

Elis (Dielis) thoracica, Sauss. and Sich., Cat. Spec. Gen.

- Scol., 1864, p. 188.

Elis thoracica var. coelebs, Sauss., Grandidier's Hist. Madagasc., xx, pt. i, 1892, p. 223.

Scolia abicollis, Dalla Torre, Cat. Hym., viii, 1897, p. 145. Elis albicollis, Bingh., A.M.N.H. (7), ix, 1902, p. 346.

NATAL ♀ ♂ (Coll. W. W. Saunders); RHODESIA: Salisbury 5000 ft. ♀ (G. Marshall); East Loangwa, Petauké 4500 ft. ♀ ♂ (S. A. Neave).

A very puzzling form of which *E. eriophora*, Klug, is said by Dalla Torre to be the \Im .

17. Elis (Dielis) xanthura, Saussure.

Elis (Campsomeris) xanthura, Sauss., Ann. Soc. Ent. Fr., 1858, p. 225 \copp.

Elis (Dielis) xanthura, Sauss. and Sich., Cat. Spec. Gen. Scol., 1864, p. 169 \color.

Rhodesia: East Loangwa 2500 ft., Petauké $\mathcal{C}(S, A, Neave)$.

18. Elis (Dielis) fasciatella, Klug.

Scolia fasciatella, Klug, Symb. Phys., 1832, Ins., pl. 27, fig. 8 &; Smith, Cat. Hym. B.M., iii, 1855, p. 103. Elis (Dielis) fasciatella, Sauss. and Sich., Cat. Spec. Gen. Scol., 1864, p. 170.

Rhodesia: Mashonaland, Salisbury 5000 ft. & (G. Marshall); East Loangwa, Petauké 2400 ft. & (S. A. Neave).

The \mathfrak{P} of this form is still unknown. It may, however, be *Elis* (*Dielis*) aureola, Klug, and the males may be dimorphic.

19. Elis (Dielis) godefredi, Sichel.

Elis (Campsomeris) godefredi, Sich., Ann. Soc. Ent. Fr., 1858, p. 227 3.

Elis (Dielis) godefredi, Sauss. and Sich., Cat. Spec. Gen. Scol., 1864, p. 177 3.

NATAL & (G. F. Leigh); RHODESIA: Mashonaland, Salisbury 5000 ft. & (G. Marshall); East Loangwa, Petauké 2400 ft. & (S. A. Neave).

20. Elis (Dielis) lachesis, Saussure.

Elis (Campsomeris) lachesis, Sauss., Stett. Ent. Zeit., xx, 1859, p. 262 ♀.

Elis (Dielis) lachesis, Sauss. and Sich., Cat. Spec. Gen. Scol., 1864, p. 182, pl. 2, fig. 16 \cong .

NATAL $\cite{G.}$ Marshall); Rhodesia: Mashonaland, Salisbury 5000 ft. $\cite{G.}$ (G. Marshall); East Loangwa, Petauké 4500 ft. $\cite{G.}$; and Melsetter, Gazaland $\cite{G.}$ (S. A. Neave).

The \mathcal{J} which I believe to be the \mathcal{J} of this form very closely resembles the \mathcal{J} of E. albicollis, but it is a smaller slighter insect with the head and thorax more sparsely pubescent, and the apical margin of the 1st as well as those of the 2nd to 5th abdominal segments with a transverse reddish yellow band.

21. Elis (Dielis) clotho, Saussure.

Elis (Campsomeris) clotho, Sauss., Stett. Ent. Zeit., xx, 1859, p. 263 \u2264.

Elis (Dielis) clotho, Sauss. and Sich., Cat. Gen. Spec. Scol., 1864, p. 182 \cong .

NATAL: Durban \mathcal{J} : Jan. 18, 1906 (G. F. Leigh); RHODESIA: Mashonaland, Salisbury \mathcal{I} (G. Marshall); Melsetter, Gazaland \mathcal{I} (S. A. Neave).

It is with considerable hesitation that I assign the single \mathcal{J} specimen from Durban in Natal to the above form. If it is not the \mathcal{J} of $E.\ clotho$, but previously undescribed, it may stand as $E.\ leighi$ mihi.

3. Black with an iridescent blue sheen on the abdomen; head, thorax and abdomen covered all over with a more or less sparsely set clothing of soft erect cinereous hairs, tibial calcaria of the posterior pair of legs white, anal spines black; the base of the mandibles, upwardly convergent short stripes on the sides of the clypeus, the posterior margin of the pronotum, lateral transverse short lines one on each side on the scutellum, a medial short similar line on the postscutellum, and the apical margins of the 2nd, 3rd and 4th abdominal segments pale dull yellow; of the last-mentioned markings that on the 2nd segment is deeply, on the 3rd slightly emarginate laterally, the marking on the 4th segment is a simple transverse even band. Head, pro- and mesonotum, scutellum, postscutellum and abdomen above with sparsely scattered fine and very shallow punctures; median segment regularly and more closely punctured above, smooth and impunctate on its posterior face. Head flat, not as broad as the thorax; mandibles acute at apex, clypeus strongly convex, face in front raised, tuberculous between the antennae; these latter filiform opaque, eyes deeply emarginate above on their inner margins, ocelli prominent. Thorax oval; median segment truncate and concave posteriorly; wings fuscohyaline with a bronzy, in some lights a purplish effulgence, forewing with two cubital cells and two recurrent nervures, legs slender unarmed. Abdomen: elongate slender, basal segment subpetiolate, nodose towards apex, a strong constriction between it and the 2nd segment, both above and below.

Length & 17. Exp. 28 mm.

The above-described \mathcal{J} resembles more or less the males of E villosa, fasciatella and godefredi, but can be distinguished from these three forms by the paucity and narrowness of the yellow markings on the abdomen, by the darker colour of the wings, and by the shape of the median segment which has its posterior face much more deeply concave.

22. ELIS (DIELIS) FASCIATIPENNIS, Smith.

Scolia fasciatipennis, Sm., Cat. Hym. B.M., iii, 1855, p.

103 ♀ ♂.

Elis (Dielis) fasciatipennis, Sauss. and Sich., Cat. Spec. Gen. Scol., 1864, p. 169 \(\frac{1}{2} \); Kirby, Trans. Ent. Soc., 1889, p. 448 \(\frac{1}{2} \).

Rhodesia: Mashonaland, Salisbury 5000 ft. \cite{G} . Marshall).

23. Elis (Dielis) Aureola, Klug.

Scolia aureola, Klug, Symb. Phys., 1832, pl. 27, fig. 11 ♀. Colpa dimidiata, Lepel., Hist. Nat. Ins. Hym., iii, 1845, p. 549 ♀.

Elis (Dielis) aureola, Sauss. and Sich., Cat. Spec. Gen. Scol.,

1864, p. 173 ♀.

NATAL: Durban $\c G.$ F. Leigh); Rhodesia: East Loangwa, Petauké 4500 ft. $\c (S.$ A. Neave).

24. Elis (Dielis) felina, Saussure.

Elis (Campsomeris) felina, Sauss., Stett. Ent. Zeit., xx, 1859, p. 265 ♀ ♂.

Elis (Dielis) felina, Sauss. and Sich., Cat. Spec. Gen. Scol.,

1864, p. 175 ♀ ♂.

NATAL: Durban $\cite{G. F. Leigh}$; Rhodesia: Mashonaland, Salisbury 5000 ft. $\cite{G. Marshall}$.

Saussure, when describing *E. felina*, remarked that it was possibly a variety only of *E. aureola*, Klug. This I think very likely, the only structural differences between *Elis aureola* and *Elis felina* are that the former insect has the head above highly polished, smooth and shining, the thorax above also smooth with only one or two punctures; *Elis felina*, on the contrary, has the head and thorax above closely punctured, dull and opaque. The males assigned by me to the latter form agree very closely with Saussure's brief description.

25. Elis (Dielis) quinquefasciata, Fabricius.

Scolia quinquefasciata, Fabr., Spec. Ins., i, 1781, p. 453.

Elis (Dielis) quinquefasciata, Sauss. and Sich., Cat. Spec.

Gen. Scol., 1864, p. 177 3.

RHODESIA: Mashonaland, Salisbury 5000 ft. 3 (G. Marshall); East Loangwa, Petauké 2400 ft. (S. A. Neave).

The males of two forms, probably new, are also contained in the collection; but as they are represented each by only one specimen, and these not in the best condition, I have failed to identify them and do not like to describe them as new.

26. ELIS (TRIELIS) PARDALINA, Gerstaeker.

Scolia pardalina, Gerst., Monats. Acad. Berlin, Nov. 1857; id. Mém. Acad. Berl., 1858, p. 495, pl. 31, fig. 11 f. Elis (Trielis) pardalina, Sauss. and Sich., Cat. Spec. Gen. Scol., 1864, p. 148 f.

PORT EREL* \mathcal{L} (Coll. W. W. Saunders). Zambezi \mathcal{L} (S. A. Neave).

The \mathfrak{P} , of which there is a single specimen only, very closely resembles Elis (Dielis) clotho, Sauss., but the wings are hyaline with a fuscous subapical cloud on the forewing, and that wing has also three cubital cells and two recurrent nervures.

27. MYZINE RUFONIGRA, form n.

Rhodesia: Bulawayo: Sept. 9, 1905 (F. A. Dixey).

d. Dull black, covered with long, soft, somewhat woolly, white hairs which are most dense on the front of the head and on the thorax posteriorly; the mandibles, clypeus, a spot above the base of the antennae, transverse medially interrupted narrow bands on the anterior and posterior margins of the pronotum, the tegulae, the tibiae and tarsi above, the femora beneath, and transverse narrow bands on the 3rd-6th abdominal segments above pale somewhat greenish yellow; the yellow on the tibiae and tarsi of the anterior and intermediate legs is continued on the underside and the transverse yellow bands on the abdominal segments are each anteriorly emarginate laterally; basal two abdominal segments blood red. Wings hyaline. Head, thorax and abdomen minutely and somewhat sparsely punctured, the median segment posteriorly, and the

^{* &}quot;Port Erel" was Col. Bingham's reading of W. W. Saunders' handwriting on the label. It seems to me more like "Port Wel," a possible contraction of "Port Welcome"; but my friend Prof. A. J. Herbertson has not been able to find that either is known to geographical science.—E. B. P.

basal abdominal segment above smooth, polished and shining, anal up-curved spine black and shining.

Length & 14. Exp. 20 mm.

Described from a single example.

Family POMPILIDAE.

1. Pompilus viaticus, Linn., var. nigripennis, Tournier.

Sphex viatica, Linn., Syst. Nat., Ed. 10, i, 1758, p. 570; Fabr., Syst. Ent., 1775, p. 349.

Pompilus viaticus, Fabr., Ent. Syst., Suppl., 1798, p. 246, et Auct.

Pompilus viaticus, var. nigripennis, Tournier, l'Entomologiste Génevois, 1889, p. 198.

Rhodesia: Loangwa 1700 ft. $\mathcal{L}(S.\ A.\ Neave)$.

This form of the common *P. viaticus*, Linn., seems to be more or less widely spread in Africa. Tournier records it from Tangier and Morocco, and there is a \mathcal{J} in the collection of the British Museum from West Africa.

2. Pompilus natalicolus, Dalla Torre.

Pompilus natalicolus, Dalla Torre, Cat. Hym., viii, 1897, p. 304.

Pompilus fervidus, Smith, Descr. New sp. Hym. B.M., 1879, p. 145 (nec. Smith, 1873).

NATAL: Estcourt 4000-5000 ft. \bigcirc (G. Marshall).

3. Pompilus festivus, Klug.

Pompilus festivus, Klug, Symb. Phys., 1834, pl. 38, fig. 8 3.

NATAL: Estcourt 4000-5000 ft. $\Im \ (G. Marshall)$; Rhodesia: Mashonaland, Salisbury 5000 ft. $\Im \ (G. Marshall)$.

Described first from Arabia.

4. Pompilus jacens, form n.

Rhodesia: Mashonaland, Salisbury 5000 ft.; Oct. 1899 (G. Marshall).

Q. Black; the palpi, mandibles, labrum, clypeus, sides of the face, a line along the inner and outer orbits meeting on the vertex, the antennae, the sides of the mesonotum broadly, the tegulae, the

apices of the coxae, the trochanters, femora, tibiae, and tarsi orange red, a broad transverse yellow band on the posterior margin of the pronotum spreading on to the anterior margin of the mesonotum in the middle, an elongate stain on the posterior tibiae and the anterior and intermediate tarsi also more or less washed with pale yellow, apical segment of abdomen above white: wings hyaline forewing fuscous at apex, veins testaceous. Head as broad as the thorax convex in front remarkably flat posteriorly, in appearance like the half of a pea; mandibles bidentate at apex, labrum triangular, clypeus anteriorly arched, raised in the middle by a strong transverse carina, that has a sharp vertical carina impinging on it in the middle, the latter carina is continued upwards between the base of the antennae to the forehead; ocelli in a triangle on the vertex, antennae comparatively short, robust, moniliform, eyes large, their inner margins parallel. Thorax very long, a third as long again as the abdomen; pronotum rounded anteriorly and at the shoulder, its posterior margin arched; mesonotum very slightly convex, scutellum elongate triangular and laterally strongly compressed, median segment evenly rounded posteriorly and obliquely sloped, a broad very ill-defined longitudinal furrow to apex; wings: forewing the radial cell large pointed at apex, the medial and submedial cells of the same length, the basal and 1st transverse subbasal nervures therefore interstitial, 1st cubital cell about as long as the 2nd and 3rd united, 2nd cubital cell quadrate receiving the 1st recurrent nervure about three-fourths of its length from base, 3rd cubital cell trapezoidal, measured along the cubital nervure below it is about twice the width it is at top; hindwing the cubital nervure originates before the apex of the submedial or anal cell, the cubital nervure at origin therefore not interstitial with the transverse anal nervure. Legs short, stout, cylindrical, spines large and stout, intermediate inner tibial calcar four-fifths, posterior inner tibial calcar three-fourths as long as their respective metatarsi, claws of fore tarsi bifid, of intermediate and posterior tarsi toothed beneath. Abdomen short and stout. Head, thorax and abdomen dull and opaque covered somewhat sparsely with short erect pale hairs, these are white and silvery at the apex of the median segment and are there longer and denser.

Length ♀ 9. Exp. 21 mm.

Described from a single example.

5. Pompilus vindicatus, Smith.

Pompilus vindicatus, Sm., Cat. Hym. B.M., iii, 1855, p. 142 \, \text{\(\text{\text{\text{Q}}}\).

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NATAL \(\text{(Coll. W. W. Saunders)}; \) Rhodesia: Mashonaland, Salisbury 5000 ft. \(\text{(G. Marshall} \)).

6. POMPILUS IRIDIPENNIS, Smith.

Pompilus iridipennis, Sm., Desc. New sp. Hym., 1879, p. 144 ♀.

This form, which is not to be confounded with *Pompilus* (recte Salius) iridipennis, Smith (Jour. Linn. Soc., 1858, p. 98), is very closely allied to *P. vindicatus*, Smith, differing from it in the broader and longer median segment which is also more rounded above. In *P. vindicatus*, the median segment is laterally compressed so as to form a slight longitudinal hollow on each side above.



Bingham, C. T. and Poulton, Edward Bagnall. 1912. "South African Aculeate Hymenoptera in the oxford Museum." *Transactions of the Entomological Society of London* 59, 528–562.

https://doi.org/10.1111/j.1365-2311.1912.tb02196.x.

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