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Notes on Fossorial Hymenoptera.—XLIII. On new Ethiopian Sphegidæ. By ROWLAND E. TURNER, F.Z.S., F.E.S.

Sphex bechuana, sp. n.

Q. Nigra; mandibulis, clypeo apice, scapo, protherace, tegulis, petiolo subtus, segmento abdominali secundo, coxis anticis intermediisque, femoribus anticis intermediisque dimidio basali infuscatis, tibiisque, posticis dimidio apicali infuscalis, ferrugineis; pronoto latitudine duplo latiore, transverse acute striato, nitido; alis fusco-hyalinis.

Long. 24 mm.

Q. Clypeus at the base and sides sparsely clothed with long pale fulvous hairs, the median portion shining, with a few large punctures, the anterior margin straight. Head coriaceous, with large scattered punctures, clothed with delicate silver pubescence. Inner margin of the eyes slightly convergent above. Pronotum long, almost half as long as its median breadth, very strongly transversely striated, margined anteriorly, the strike numbering five or six, more or less interrupted in the middle, the space between the strike shining. Mesonotum strongly transversely striated,

the strize interrupted in the middle by a very deep longitudinal sulcus, which becomes subobsolete posteriorly, the space between the striæ shining; scutellum and metanotum strongly longitudinally striated. Median segment dull, closely transversely striated. First joint of the petiole as long as the hind femur. Claws unarmed, but with a distinct pulvillus. Second cubital cell three-quarters as long on the radius as on the cutitus; third cubital cell a little longer on the cubitus than on the radius; second transverse cubital nervure straight, third strongly curved outwardly.

Hab. Ghanzi, Mongalatsila, North Bechuanaland; Jan-

uary 18, 1925 (J. Maurice).

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Easily distinguished from S. braunsi, Turn., by the much coarser sculpture of the pronotum and mesonotum, the strize in braunsi being much closer together and less elevated; the pronotum is also distinctly shorter than in braunsi.

Sphex insignis, Sm.

Ammophila insignis, Sm. Cat. Hym. B.M. iv. p. 213 (1856). Ammophila egregia, Mocs. Ent. Nachr. vii. p. 327 (1881).

These are identical, so Mocsary's name must sink. As in some other species of the genus the colour varies very much locally, the contrast between race transvaalensis, Cam., and race litoralis, Arn., being very marked. Similarly, a specimen of S. beniniensis taken by me at Mossel Bay has the second abdominal segment bright ferruginous, also the tibiæ, tarsi, and the greater part of the femora; another specimen of the same species from the Some Forest, Uganda, has the abdomen almost entirely dull ferruginous covered with silver pile. The differences in S. tenuis are noticed by Arnold.

Thyreopus (Neodasyproctus) basutorum, sp. n.

Q. Nigra, nitida; scapo, pronoto linea interrupta, tergitis 2-5 macula utrinque, tibiisque anticis intermediisque supra flavis; tarsis anticis pallide ferrugineis; tibiis anticis subtus fuscoferrugineis, calcaribus albidis; alis pallide fusco-hyalinis, iridescentibus; venis nigris.

Long. 9 mm.

2. Clypeus densely clothed with silver pubescence, with a low carina from the base to near the apex, where it branches into two, forming a small, margined, triangular area, the angles of which are produced and form two small teeth on the anterior margin. Second joint of the flagellum

fully half as long again as the first, a little shorter than the third, and only about half as long again as its apical breadth. Scape without a carina in front, the facial concavity rather shallow and not marginate above. Front closely and rather strongly punctured, more or less reticulate above the facial concavity, vertex much more finely and sparsely punctured, the space behind the eyes and the temples almost smooth. Posterior ocelli a little further from the eyes than from each Pronotal collar with a distinct depression in the middle, interrupting the marginal carinæ; the space between the carine forming the anterior and posterior margins flat, not elevated as in kohli. Mesonotum strongly, but rather sparsely punctured; mesopleuræ smooth and shining; scutellum sparsely punctured anteriorly, the posterior portion clothed with close-lying hairs giving an appearance of longitudinal striolation; metanotum opaque. Median segment rather finely punctured, with a transverse clathrate groove at the base and a smooth median groove from base to apex; the median area distinctly defined. Abdomen smooth and shining, the puncturation microscopic. Petiole nearly half as long again as the second tergite, only feebly clavate. Hind tibiæ with a row of five small teeth on the outer margin.

Hab. Van Reenen, Natal; 6000 ft.; January 24, 1927

(Turner). 1 \circ .

This species is very distinct from kohli, Arn., the only species of the group hitherto described; differing from it in the much finer sculpture, which does not obscure the basal area of the median segment, in the smooth mesopleuræ, and in the bidentate clypeus as well as in other details; but agrees with it in the neuration, the tridentate mandibles, and in other subgeneric characters.

Tachytes calvus, sp. n.

- Q. Nigra; abdomine rufo-ferrugineo, area pygidiali aureo-pilosa; tarsorum articulis duobus apicalibus brunneo-ferrugineis; alis hyalinis, venis fusco-ferrugineis.
 Long. 11 mm.
- ? Interocular distance on the vertex equal to the length of the second joint of the flagellum; galea shorter than the scape. Head and thorax closely and minutely punctured, almost without pubescence, the mesonotum and vertex entirely bare. Median segment without pubescence, the declivity finely transversely striate, the dorsal surface finely and irregularly obliquely striated. Second sternite closely

and microscopically punctured, shining. Tergites without apical bands of pubescence. Pygidial area elongate, narrowly rounded at the apex. Anterior metatarsus with five spines.

Hab. Okahandja, S.W. Africa; February 1928 (Turner).

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This may possibly prove to be a dwarf race of *T. sjöstedti*, Cam., agreeing in most structural features with the race formosa, Arn., but differing in the entirely red abdomen, in the absence of pilosity, and much reduced pubescence; also, apparently in the sculpture of the dorsal surface of the median segments.

Tachytes kristenseni, Turn.

Tachytes kristenseni, Turn. Ann. & Mag. Nat. Hist. (8) xx. p. 30 (1917). Q.

Described from a single female, taken at Harar, Abyssinia. I took a pair of this species at Okahandja, S.W. Africa; the male in December 1927, the female in March 1928. I have seen no other specimens.

Tachytes (Holotachytes) hospes, Bingh.

Tachytes hospes, Bingh. Journ. Bombay Nat. Hist. Soc. xii. p. 119 (1898).

This is a subspecies of the West African T. dichrous, Sm., differing in the somewhat narrower pygidial area in both sexes, but not in the interocular distance nor in other characters. The series from Colonel Nurse's collection is now in the British Museum, and I have also seen a specimen from Southern Iraq.

Miscophus deserticolus, sp. n.

- Q. Nigra, nitida; mandibulis basi, tibiis tarsisque brunneoferrugineis; clypeo pleurisque argenteo-pubescentibus; alis hyalinis, venis nigris, tegulis fuscis.
 Long. 5 mm.
- Q. Clypeus opaque, closely and finely punctured, the apical margin transverse, very feebly convex, and without a carina. Head, thorax, and median segment shining; mesopleuræ opaque, coriaceous, sides of the median segment with a few delicate striæ; head and mesonotum with a few microscopic punctures; abdomen smooth and shining. Front slightly concave as far from the base of the antennæ as the length of the scape, the concave area sharply transversely divided above from the rest of the head, but

without a distinct marginal carina. Ocelli in an equilateral triangle, the posterior pair much nearer to the eyes than to each other. Eyes separated on the vertex by a distance a little greater than the length of the first and second joints of the flagellum combined, diverging considerably towards the clypeus. First joint of the flagellum very little longer than wide, second a little longer than the third and more than twice as long as the first. Pronotum more than twothirds as long as the mesonotum, narrowed anteriorly and microscopically transversely striate, the dorsum of the median segment with similar sculpture. First abdominal segment narrow and petiolate, half as long as the thorax and median segment combined, the petiole as long as the gradually broadened apical portion of the segment. Legs long and slender, no comb on the anterior tarsus, hind metatarsus shorter than the tibia by one-fifth and as long as the rest of the tarsus. First recurrent nervure received considerably before the middle of the first cubital cell, second at the middle of the second cubital cell. Petiole of the second cubital cell very short, almost obsolete, the cell triangular, the outer side incomplete near the cubitus.

Hab. Swakopmund, S.W. Africa; April 3, 1928 (Turner). In the long pronotum this resembles M. cyanescens, Turner, but is very distinct in colour, in the shining surface, the long petiole, and other details. In the same spot I took M. kohli, Brauns, and a species which seems to be a form of M. pseudonotogonia, Brauns. The form of the first segment is similar to that of M. kohli, but is more elongate.

Miscophus arnoldi, sp. n.

- d. Niger, opacus; mandibulis fusco-ferrugineis; tergitis duobus sternitisque tribus basalibus rufo-ferrugineis; alis hyalinis, venis fuscis, tegulis brunneis; cellula cubitali secunda minima, subobliterata.
- Long. 3.5 mm.
- 3. Clypeus convex, slightly produced in the middle of the anterior margin. Head and thorax closely and finely reticulate-punctate, with sparse silver pubescence, which is absent on the vertex and mesonetum. Ocelli in a rather wide triangle, the posterior pair further from each other than from the anterior, and separated from the eyes by a distance equal to about one and a half times their own diameter. Eyes only slightly convergent towards the vertex, interocular distance equal to the combined length of the three basal joints of the flagellum plus half the fourth. First

joint of the flagellum longer than broad, a little more than half as long as the second. Collar of the pronotum very short; median segment narrowed posteriorly, a little shorter than the mesonotum, the sculpture similar to that of the thorax, but a little coarser, with a longitudinal groove. Abdomen subsessile; microscopically punctured, the first tergite slightly constricted at the apex. Second cubital cell almost obsolete, first recurrent nervure received just beyond the middle of the first cubital cell.

Hab. Matjesfontein, Cape Province; November 1928

(Turner). 1 3.

In sculpture this resembles M. kriechbaumeri, Brauns, but is without the golden scales characteristic of that species, the pronotum is also much shorter, and the first tergite is not constricted in kriechbaumeri. The subobsolete second cubital cell is a unique character.