

III.—New Records of Natal Bees (Second Contribution),

by

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ANTHOPHORA ADVENA, Smith.

♀. Umbilo, 2nd Oct., 1915 (L. Bevis; 1706); ♂. Umbilo, 9th May, 1915 (L. Bevis), and 17th Oct., 1915 (L. Bevis; 1709). I find that a male from Durban (1025), collected by Mr. H. M. Millar, which I reported as *advena*, is a variety of *A. acraënsis*, having a sprinkling of white hair on the fourth abdominal segment. In true *advena* male, the fourth segment is densely covered with white hair. The variety requires investigation; could it be a hybrid between the two species?

ANTHOPHORA ACRAËNSIS, Fabricius.

♂. Umbilo, 17th Oct., 1915 (L. Bevis; 1709, in part). This species has been confused with *A. advena*, but appears to be unquestionably distinct. The hair of the pleura is black.

ANTHOPHORA VESTITA, Smith.

♀. Umbilo, 17th Oct., 1915 (L. Bevis; 1708), five specimens, of which four have a yellow marginal band on clypeus, while the fifth has only a spot on each side.

♂. Umbilo, 17th Oct., 1915 (L. Bevis; 1709, in part). Compared with a male from Willowmore, Cape Colony (Brauns) this is smaller, with the black marks on upper part of clypeus larger. Possibly a good series would indicate a racial difference between the Umbilo and Willowmore forms, but they have the same essential characters and certainly represent one species. The type of *A. vestita* was from Natal.

Among the Natal species of *Anthophora*, *vestita* will be known by the abdomen being covered with red or fulvous hair. The male has the face-markings lemon-yellow, and when the abdominal segments are extended, the abdomen appears more or less distinctly banded; the fifth and sixth segments have black hair at the base, which is almost entirely concealed when the segments are contracted.

ANTHOPHORA CIRCULATA, Fabricius.

♀. Umbilo, 2nd Oct., 1915 (L. Bevis; 1706); 10th Oct., 1915 (L. Bevis; 1708). ♂. Umbilo, 10th Oct., 1915 (L. Bevis; 1708). The male has large black markings on the clypeus, and is *A. fallax*, Smith. I am now convinced that *fallax* represents only a variation of *A. circulata*.

ANTHOPHORA CALIGATA, Gerstaecker.

♀. Umbilo, 2nd, 10th and 17th Oct., 1915 (L. Bevis); 9th June, 1915 (L. Bevis). Lr. Umkomaas, 18th Dec., 1914 (L. Bevis; 1485).

TETRALONIA SHEFFIELDI UMBILOENSIS, sub-sp. nov.

♀. Scutellum covered with very dark fuscous hair; abdomen with dark hair at extreme base. The hind margins of the abdominal segments are so broadly ferruginous, that the tegument of the abdomen appears red, evidently black only at bases. Umbilo, 28th April, 1915 (L. Bevis; 1565). Additional material is necessary to show whether this is a distinct sub-species, or only a variety. The insect superficially resembles *Anthophora vestita*, but the venation is different.

CÆLIOXYS LORICULA, Smith.

The hitherto unknown female comes from Umbilo, 28th April, 1915 (L. Bevis; 1565). The end of the abdomen is entirely of the type of the European *C. quadridentata*, except that the lower plate is shorter and less deflected downward, and its lateral notches are rectangular. In Friese's table of African species this runs to *C. caffra*, but the legs are not red, and the apical lobe of apical inferior plate of abdomen is broader and shorter. Evidently *C. caffra* is a distinct though closely allied species. At first sight one might suppose the female *loricula* to belong with the male *C. dolichacantha*, which also occurs at Umbilo; but it differs from the new species in the shorter, curved, axillar spines, the more finely punctured abdomen (much more closely punctured on ventral surface), and the first recurrent nervure joining the second submarginal cell further from the base (in *dolichacantha* at or very near the base).

CÆLIOXYS DOLICHACANTHA, sp. nov.

♂. Length 11–12 mm.; black, including legs, antennæ and mandibles; hair on eyes short; face covered with appressed cream-coloured hair; labial palpi with first joint about half as long as second, and mainly black, contrasting with the remaining joints, which are pale reddish; mesothorax with extremely large punctures, well separated on disc; scutellum with rather smaller extremely dense punctures, its surface like a fine network; hind margin of scutellum gently rounded, faintly inclined to be emarginate; axillar spines very long and nearly straight; pleura and sides of metathorax with white hair, and two lines of white hair at base of scutellum; tegulæ piceous; wings fuliginous, pale basally; spurs very dark reddish; tarsi with orange hair on inner side; abdomen with pure white hair-bands, linear in middle, expanded at sides; surface of abdomen shining, with well-separated punctures; fifth segment unarmed; sixth six-spined, the lower apical longer than the upper.

Umbilo, 17th Oct., 1915 (L. Bevis; 1709, in part). Also Umbilo, 28th March, 1915 (L. Bevis; 1533).

In Friese's table runs to *C. sexspinosus*, Friese, but is much larger.

MEGACHILE MELLIFERINA, Cockerell.

Both sexes collected by Miss Robarts at Durban. The male, hitherto unknown, is about 10 mm. long, with the same general coloration as the female, the tegument of the abdomen largely red on basal segments. Antennæ slender, black, not clubbed or expanded at end; face densely covered with cream-coloured hair; anterior tibiæ and tarsi ferruginous, the tibiæ with long fulvous hair behind, the tarsi pallid, only moderately expanded, with long white hair behind, and an oval black spot on inner side at base of this fringe; anterior coxæ with blunt and rather short spines; middle legs with extremely long white hairs behind; sixth abdominal segment strongly emarginate, but not dentate. This male resembles *M. unguolata*, Smith in the coloration of the abdomen, but the legs are quite different.

MEGACHILE VENUSTELLA, sp. nov.

♀. Length about 11 mm., broad, black, with white and black hair; superficially like the European *M. apicalis*. Closely related to *M. venusta*, Smith (Kalahari specimen compared), but differing thus:

smooth median line on clypeus less distinct; vertex with black hair; mesothorax and scutellum with a strong admixture of black hair; wings distinctly brownish; sixth abdominal segment with hair all black; ventral scopa pure white at sides, fulvous in middle, black at extreme apex.

Umbilo, 10th Oct., 1915 (L. Bevis; 1708).

The following key separates this from several rather similar species:

Abdomen with fulvous hair-bands; ventral scopa mainly red, but white at base and black at apex *ekuivella*, Ckll. (Benguella).

Abdomen without fulvous hair-bands 1.

1. Hair on scutellum all, or practically all, black; ventral scopa coloured as in *ekuivella* *caricina*, Ckll.

Hair on scutellum all or partly pale 2.

2. Hair on scutellum entirely pale; hair around ocelli tinged with fulvous *venusta*, Smith.

Hair on scutellum partly black 3.

3. Length about 8 mm.; disc of mesothorax glistening between the punctures *gratiosa*, Gerst. (Transvaal).

Length about 11 mm.; disc of mesothorax dull *venustella*, Ckll.

My *M. gratiosa* was determined by Strand, and represents that species as understood at the Berlin Museum. It was collected by F. Wilms at Lydenburg, Johannesburg.

HERIADES BEVISI, Ckll., variety *a*.

♂. Length 5 mm., anterior wing 4 mm.; black, coarsely punctured, with white hair, on abdomen only forming distinct bands at sides of first and second segments; axillar spines well developed. Differs from typical *bevisi* by the brownish wings and shorter second submarginal cell; it may possibly prove to be a distinct species.

Umbilo, 16th March, 1915 (L. Bevis; 1531).

HERIADES CHLOROPS, sp. nov.

♂. Like *H. bevisi* variety *a*, with brownish wings and relatively short second submarginal cell, but distinct hair-bands only at sides of first abdominal segment, and flagellum long and slender (about 2.4 mm. long), distinctly crenulate, the middle joints about 190 microns long.

The eyes are greyish-green, with the lower end pale; in *bevisi* and variety *a* they are brown. The ocelli are pale greenish-yellow; in *bevisi* var. *a* they are pale reddish.

Umbilo, Durban, 8th Dec., 1914 (L. Bevis).

Extremely close to *H. bevisi* var. *a*, but evidently a distinct species. Also very close to *H. longicornis*, Friese, from Kigonsera, but the hair is white, the thorax is shining between the punctures, and the femora are not red-brown. Also related to *H. argentatus*, Gerst.

On the same day, at Umbilo, Mr. L. Bevis took a female *Heriades*, 7 mm. long, agreeing with *H. chlorops* in the dusky wings, and also in the possession of two pairs of spines on the posterior part of the thorax, one axillary, the other at sides of base of metathorax. The ventral scopa is white. Superficially, this looks like *H. chubbi*, but the punctures of the mesothorax are very much finer. The mesothorax is shining, with the punctures as dense as possible, and much smaller in the middle than sub-laterally. In *chlorops* (male) the punctures are larger, and not reduced in the middle. No such sexual difference appears in a number of *Heriades* examined. This female is not *H. albiscopanus*, Strand, which is smaller (length 5.5 mm.) and has no axillary spines. It seems best to regard this Umbilo female as a distinct species, which may be named:

HERIADES PUNCTULATUS, sp. nov.

Other characters are: clypeus as densely punctured as possible, not at all carinate, with an even, slightly concave lower margin; mandibles with two large teeth, occupying the outer half of the cutting edge; eyes greyish-brown; axillar and metathoracic spines stout and curved, thorn-like; second recurrent nervure joining second submarginal cell at apex; hair on inner side of hind tarsi white, faintly yellowish apically, but on inner side of anterior tarsi orange; abdomen with very narrow thin hair-bands, broadened and dense at sides of first segment.

ALLODAPE VARIEGATA, Smith.

Umbilo, 15th Oct., 6th Dec., 22nd Feb. (L. Bevis); Widenham, 14th Dec., 1914 (L. Bevis; 1482).

A small species, with broad yellow band on scutellum, and abdomen largely red. A specimen from F. Smith's collection, from the Cape of Good Hope, differs by the red abdomen, only faintly dusky on apical

half, and without lateral blackish marks. This is probably a distinct race, but the type locally is Port Natal, and the specimens collected by Mr. Bevis represent the typical form as described by Smith.

ALLODAPE MAURULA, sp. nov.

♂ (Type). Length a little over 5 mm.; shining black, with clavate abdomen, narrowed basally; hair very scanty, and white; clypeus creamy-white, equally broad above and below, but constricted in middle; small cuneiform lateral marks between lower half of clypeus and eye; eyes prominent, converging below, the face very narrow; scape with a white stripe in front, flagellum entirely black; mesothorax shining, but scutellum dullish; tubercles cream-colour, but rest of thorax black; tegulae hyaline; wings faintly dusky, stigma and nervures fuscous; legs black, with the tarsi cream-colour, reddened apically; abdomen black, without markings, hair at apex white.

♀. Length about 6 mm., rather slender; white clypeal area with upper half broader than lower; no lateral marks; antennae entirely black; tarsi black basally and ferruginous apically.

Type from Durban, 24th Feb., 1915 (H. M. Millar; 1507). Females from Umbilo, 22nd Feb., 1914 (L. Bevis; 1120), and 18th April, 1915 (L. Bevis; 1563).

Very like *A. lacteipennis*, Brauns, but the female of that species has only the upper edge of the clypeus white. *A. albipennis*, Friese, is also related, but has milk-white wings, and is distinctly smaller.

ALLODAPE CORDATA, Smith.

Umbilo, 6th & 18th Dec., 18th & 28th April (L. Bevis). Widenham, 13th Dec., 1914 (L. Bevis; 1481).

Of the four Widenham specimens, three have the hind margins of abdominal segments more or less reddened.

ALLODAPE STELLARUM, Cockerell.

Females from Umbilo, 5th & 18th April (L. Bevis), and Widenham, 17th Dec., 1914 (L. Bevis; 1484).

Male from Widenham, 13th Dec., 1914 (L. Bevis; 1481). The male is new; it has the clypeus white except a small black spot on each lateral margin near the middle.

PROSOPIS BEVISI, sp. nov.

♂. Length a little over 6 mm.; black, with legs, sides and extreme base of first abdominal segment red; entire face below antennæ red (probably orange in life), including supraclypeal mark (quadrate, broader than long), and with lateral marks ending in a point on orbit at about upper level of antennal sockets; mandibles and labrum red; scape red, but the short thick flagellum black, reddish only at base; a well developed keel mesad of each antenna; front and vertex minutely rugose; mesothorax dull and densely punctured; prothorax and tubercles red, but rest of thorax black; base of metathorax shining, with strong short plicæ; pleura dull and rugulose; tegulæ testaceous; wings hyaline, very faintly dusky, stigma and nervures dark brown; first recurrent nervure joining first submarginal cell at end; second recurrent meeting outer transverso-cubital; abdomen broad, shining, with white lateral hair-bands on first segment, but not on the others; surface extremely finely sculptured, appearing rather sericeous; margin of second segment elevated.

Umbilo, 22nd Feb., 1914 (L. Bevis; 1120).

Resembles *P. rubriplagiata*, Cam. = *P. braunsi*, Alfken. (this synonymy due to Dr. Brauns in litt.), but easily distinguished by the entirely red legs, lack of distinct (visible under lens) punctures on abdomen, different base of metathorax, short and broad supraclypeal mark, short and dark flagellum, etc. In Friese's 1911 table it runs nearest to *P. braunsi*. It agrees with none of the species more recently described by Alfken and Strand.

THRINCHOSTOMA MILLARI, Cockerell.

♀. Umbilo, 10th & 17th Oct., 1915 (L. Bevis).

NOMIA MEGALEPIS, Cockerell.

♀. Umbilo, 25th Oct., 1914 (L. Bevis; 1427).

In Ann. Durban Mus., vol. i, p. 463, the "following bee" referred to under *Crocisa arcuata* is of course *Nomia nigripes* (p. 464), which did follow in the MS. as originally written.

HALICTUS JUCUNDUS, Smith.

♀. Umbilo, 10th Oct., 1915 (L. Bevis; 1708). Smaller and less robust than usual.

HALICTUS RHODASPIS, sp. nov.

♀. Length about 10 mm.; black, including the antennæ, mandibles and tarsi; hair of face, cheeks, pleura and metathorax greyish-white, of vertex and mesothorax pale fulvous, of scutellum and middle of post-scutellum bright ferruginous; upper part of clypeus (except the margin) opaque and very densely rugosopunctate, below this are larger, distinct punctures, while the swollen lower marginal area is polished; vertex glistening; mesothorax very finely and closely punctured, shining between the punctures; area of metathorax covered with fine vermiform wrinkles, without radiating plicæ; tegulæ red; wings faintly dusky, stigma and nervures dark brown; legs with pale hair; hind spur minutely serrate; abdomen shining, very minutely punctured; a broadly interrupted band of ochreous tomentum at base of second segment, and a very broad entire band at base of third; hair at apex pale fulvous; venter with long pollen-carrying hair.

Umbilo, 17th Oct., 1915 (L. Bevis; 1709).

In Meade-Waldo's table of African *Halictus* this runs to *H. capicola*, Cam., which is smaller, with the clypeus differently sculptured. It agrees with none of the species described by Cameron, Friese or Vachal. It is larger than *H. diversus*, Sm., and differs in having the area of metathorax sharply limited posteriorly, the flagellum all black, etc. From *H. diversiformis*, Ckll., it is known by the red tegulæ, dark stigma, etc.



Cockerell, Theodore D. A. 1917. "III. □New records of Natal bees (Second Contribution)." *Annals of the Durban Museum* 2, 39–46.

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