

SOME NEW TRYPETIDAE (DIPTERA) FROM KENYA
(CHYULU HILLS)

III.

By H. K. MUNRO.

Among the large series of Trypetidae kindly sent to me for study by Dr. V. G. L. van Someren from time to time, are a number of specimens collected by him in the Chyulu Hills. Several of these represented known species, but there were also some new species and others that must be regarded as varieties of previously described species. The new species and varieties are described here, and the types will ultimately be deposited in the British Museum.

DACUS (DIDACUS) ARCUATUS, n.sp.

A species of the *ciliatus* group having all the yellow markings, except the dorsal stripes, strong, the third segment of the male ciliate and the base of the ovipositor short. It belongs, however, to the series in which the middle femora are entirely ferruginous. It agrees more closely with *ostiofaciens*, Mro., rather less with *tenebricus*, Mro., as shown in the following table:

	<i>Ostiofaciens.</i>	<i>Arcuatus.</i>	<i>Tenebricus.</i>
Upper cross-vein infuscated.	No.	Slightly.	Slightly.
Costal bar.	Complete, narrow and dark, with a pical spot.	As in <i>ostiofaciens</i> .	A dark spot at stigma and apical spot, pale between.
Last section of fourth vein.	Tip distinctly upturned.	The whole forming a gentle arc	Tip just upturned.
Scutellar bristles.	About equal to length of scutellum apart or slightly more, rather more than half width of base of scutellum.	As in <i>ostiofaciens</i> .	About the length of scutellum apart, but only one-third width of its base.

Holotype male, allotype female, 6 ♂♂, 6 ♀♀ paratypes, Chyulu Hills, Kenya, July, 1938, van Someren, reared from fruits of *Pergularia* spp.; 2 ♂♂, 2 ♀♀ paratypes, Mbololo, Kenya, same date and from same plant.

Length: ♂ 6.5 mm., of wing 5.0 mm.; ♀ 7 mm., of wing 4.75 mm. *Head* normal, yellow; occiput brown, the margin below yellow, above with a mere trace of yellow; frons barely one-third width of head, slight black pubescence in middle, the fore half dark brown or reddish, the lateral spots strong, ocellar dot black, bristles black, two inferior, one superior orbital, ocellars microscopic; lunule short, black; antennae brownish, slightly darkened on outside of third joint, first joint short, the other two as long as cheek; face yellow, the black spots large and oval; palpi and proboscis yellow. *Thorax* rather light ferruginous, pubescence pale; there are the usual darker or blackish marks and stripes on the dorsum and the mesopleura and sternites black; yellow marks strong, namely, humeri, moderate mesopleural stripe from suture to sternite, single hypopleural spot and scutellum except base; bristles: no anterior supra-alars and no pre-scutellars, outer scapulars moderate, sometimes weak or absent, or duplicated, the inner not developed, two scutellars; halteres yellow; legs ferruginous, the middle femora wholly so, the front pair paler basally with a blacker spot just past middle, hind pair yellow on basal two-thirds, at end blackish, as also tibiae, tarsi more yellow; wing with narrow black costal margin from stigma including marginal cell, base of sub-marginal as far as, and slightly but distinctly over upper cross-vein, and oval spot on end of third vein, on either side of second vein more yellow, anal stripe strong as also cloud below end of sixth vein in male, the length of the point of anal cell compared to the distance of its tip from the wing margin is about 3:2 in ♂, and 5:4 in ♀, but varies a bit from one specimen to another; the last section of the fourth vein is a gentle curve entirely above a line drawn through the point at the discal cell and the spot where it touches the wing margin—in *ostiofaciens* and *tenebricus* such a line coincides with the vein a little before its end, even if it does not actually go slightly above before the tip. *Abdomen* rather narrowed in specimens, normally probably oval; ferruginous with a paler bar on the hind edge of second segment and a pair of sub-lateral black spots on third segment which is ciliate in male: pubescence pale and short; male genitalia dark; base of ovipositor short, 1.25 mm., flattened, probably normally conical as in *ostiofaciens*.

DACUS (PSILODACUS) INFLATUS, n.sp.

A black species very like *D. macer*, Bez.,* but the latter has the costal margin on the wing stronger and wider, and the upper cross-vein slightly infuscated. The new species also appears to resemble *apostata*, Her., and *ariana*, Her.;† from both it differs in the less acute position of the upper cross-vein and the shorter point of the anal cell; *apostata* has the upper cross-vein infuscated and the only orbital the single inferior, while *ariana* has two inferior and one superior orbital—in *inflatus* there are the two inferior orbitals only.

Holotype male, allotype female and one female paratype, Noka, Kenya, June, 1938, van Someren. Larvae in cucurbit No. 4.

Length: ♂ 5.0 mm., ♀ 5.5 mm., wing ♂ 4.75 mm., ♀ 5.25 mm. Head: proportions of length, height and width, 7:9:11; occiput shining black, yellow below but no yellow edge on upper part of orbits, brownish above neck and a yellow spot behind vertex; frons somewhat concave in specimens, twice as long as wide and about one fourth width of head, yellow, shining black over vertex including ocellar dot, but on each side of latter is a brownish dot, across middle of frons a strong brown bar one-sixth its length and connected to ocellar dot by a narrow median stripe leaving thus a pair of large, rounded, yellow spots on upper part of frons, the upper inferior orbital close to front edge of brown bar, the lower at base of antennae, each on a brown dot, superior orbitals absent, the ocellars minute, hair-like, slight black pubescence on anterior middle, some pale on sides; lunule black; antennae black, as long as cheek, the first joint short, arista brown at base, bare; face, narrow cheeks and genae yellow; palpi and proboscis yellowish. Thorax shining black, very lightly grey-dusted, except on anterior edge, the dust further forming a more distinct pair of rather wide, median stripes, narrow anteriorly and separated by a black streak, there is moderate, short, pale pubescence on dorsum, but no yellow post-sutural stripes; yellow are: humeri, a large mesopleural area touching the sternite below but not, except a trace in one specimen, on to the notopleural callus, and a single, large hypopleural spot; the propleura and the fore, lower corner of mesopleura more ferruginous and set with short, appressed white pubescence, which on yellow areas is yellow; scutellum yellow with slight yellow pubescence, the base narrowly black; bristles black, no anterior supra-alars nor pre-scutellars, only outer scapulars, two scutellars, a notopleural,

* Bezzi, *Bull. Ent. Res.*, VIII, 180, fig. 3, 1917.

† Hering, *Mitt. Zool. Mus. Berlin*, 22, 257, 258, 1937.

mesopleural and a very weak or no pteropleural. Legs and halteres yellow. *Wing*: the proportions of the length of the stigma, the distances between first and second, and second and third veins on costa are, in both sexes, 7, 5, and 10; the upper cross-vein is markedly perpendicular, being at right angles to the second vein and almost so to the third; the inner part of first posterior cell widened much as is seen in *macer*, but perhaps rather more so; point of anal cell acuminate, narrow, rather wider in male, three-fifths length of rest of sixth vein to wing margin in both sexes; stigma black, the marginal cell barely infuscated, the submarginal not at all except at end where the isolated, more or less oval, apical spot extends from about midway between ends of second and third to as far between ends of third and fourth; upper cross-vein not infuscated. *Abdomen* rugose, shining black, with moderate whitish pubescence; the apical segment yellow in middle and at end, but the rounded depressed areas black; sternites black; genitalia yellow; base of ovipositor short, 1 mm., flattened in specimens, light ferruginous, with pale, brownish pubescence.

PARDALASPIS CUTHBERTSONI, Mro.
var. *NIGROTERTIUS*, var. nov.

It seems best to regard the specimens recorded here as representing a blacker, and slightly larger and more robust form of *cuthbertsoni*; the variety differs most markedly in the coloration of the abdomen.

Holotype male, allotype female, 5 male and 6 female paratypes, Chyulu Hills, Kenya, 6,000 feet, June, 1938, van Someren. Larvae in fruits of *Conopharyngia*.

Length: ♂ 8.0 mm., of wing 7.0 mm., ♀ 12.0 mm., of wing 8.0 mm. *Head*: in both sexes as in *cuthbertsoni*, but upper middle part of occiput black, and upper part of frons with blacker tinge. *Thorax*: dorsum black, moderate whitish dust, pubescence before suture short and yellowish, behind longer and black; humeri and pleura light blackish-brown, upper half of mesopleura yellow, the contrast much more strongly marked than in *cuthbertsoni*; pubescence rather long, pale yellow, black along top of mesopleura. *Abdomen*: in *cuthbertsoni* more reddish brown, with fairly large, separated or more or less indistinctly united spots. In the variety it is more completely black, or brownish black, in particular the third tergite, only the base, first segment, brownish, rather densely covered with brown dust and pale yellow pubescence; the second segment is black with thick blue-grey dust, only perhaps slightly paler in middle where dust is brown, the pubescence black only pale on

centre of anterior edge; third segment brownish-black only hind edge and lateral margins narrowly grey-dusted and a trace of brown dust on middle, pubescence black (the coloration of this tergite is the special difference from *cuthbertsoni*); 4th segment black, the posterior two-thirds thickly grey-dusted, leaving a brownish-black bar, broken in middle, on anterior edge, on the middle of each side is a conjoined spot and the inner, convex margin of the brownish-black is broadly margined posteriorly with white dust and white pubescence, which is otherwise black; fifth segment has a broad spot on each side separated by a yellowish spot on centre and bordered behind by whiter dust and white pubescence but not as marked as on fourth segment, apex of segment more or less reddish, pubescence black. In one male the hind third of third segment is widely grey-dusted and the black almost broken up into broad spots, and on the fourth the anterior brownish-black bar is broken up into four spots, the appearance thus approaching that seen in *cuthbertsoni*. In the female the abdomen is almost entirely black, the markings are obscure but much as in the male; there is thick grey dust almost all over and the pubescence black except on first segment and the hind edges of the pair of sub-median black spots on the fourth segment; the second segment shows an indistinct brownish spot towards each side; the third is more strongly brown with less dust; on the fourth the median pair of spots is more distinct, the anterior brown edge less marked laterally and a pair of barely marked brown spots towards the sides; fifth segment with indistinctly brown fore edge and pair of dorso-central spots; sixth very short and blackish, the apical bristles strong. Male genitalia reddish. Base of ovipositor 4.0 mm., flattened in specimens, blackish ferruginous on basal half, black outwardly, pubescence black. Wing as in *cuthbertsoni*, but in female the medial band rather stronger.

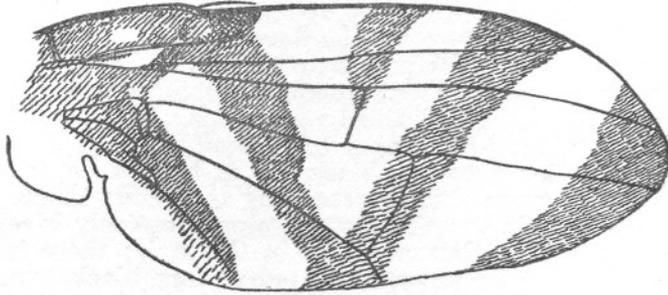
TYLASPIS QUINOTATA, n.sp.

A brown species; differs from the others with bilobed scutellum (*maraisi*, Mro., and *russa*, Mro.) in the wing-pattern which is characterised by a simple, conspicuous V-shaped figure.

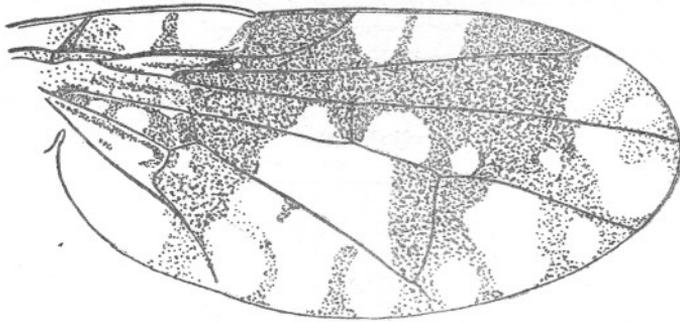
Holotype ♂, Chyulu Hills, Kenya, April, 1938, alt. 3,500 feet, Coryndon Museum Expedition.

Length 5.0 mm., of wing 5.2 mm. *Head*: proportions of length, height, and width, 2:3:4 (the length is rather more than half width); occiput concave above, moderate below with pale yellow pubescence; bristles yellowish with black setulae between; frons prominent before eye, the fronto-facial angle marked, width about two-fifths greater than length; slight yellow pubescence before lunule; reddish-brown but light

FIG. I.



Tylaspis quinotata sp. nov.



Baryglossa tersa sp. nov.

brown broadly round dark ocellar dot, on vertical plates and on sides in front; inner and outer vertical bristles, the two superior orbitals abraded; ocellars very small, brown, three inferior orbitals black; lunule large, about one-third length of frons, light brown, whitish in middle and a little black pubescence on sides; antennae about three-fourths length of face, third joint narrowed outwardly, the apex rounded, first and second joints with black setulae, arista short pubescent; face flat, the epistome somewhat broadly prominent, with black pubescence on sides; cheeks about two-thirds width of third antennal joint, genae a quarter height of eye, a rather indistinct, sub-ocular spot reddish brown, the black bristle strong; mouth opening large; eye of moderate size, microscopically pubescent. *Thorax* yellowish-brown, densely dusted; on dorsum a pair of wide, dark brown stripes on dorso-central line; pubescence mostly abraded but apparently pale yellowish; bristles normal, black, on darker brown to black spots, dorso-centrals half-way between anterior supra-alars and suture, two mesopleurals, the lower weaker, pteropleural and sternopleural present, four scutellars; scutellum flat above, the basal bristles on small black spots, the apicals on large, shining black spots, the apex moderately bilobed; squamae pale yellow, of moderate size, ear-like; legs light brown with black clothing except yellowish on front femora and basally on middle pair; coxae with usual bristles strong (one also on sternite before each middle coxa), front femora slightly swollen and with row of black bristles; halteres yellow; wing (fig. 1) stigma short, one strong costal bristle about as long as stigma present and another apparently of same size broken off, third vein with one or two setulae at base; pattern yellowish-brown, base and stigma darker as also costa where touched by bars. *Abdomen* yellowish-brown, pubescence on segments one and two, and on hind edge of third yellowish, black elsewhere as well as on sides of second segment, apical bristles on last segment strong; venter pale brown, pubescence yellowish, black on last sternite; genitalia brownish.

SPHENISCOMYIA NEAVEI, Bez.,
var. *CHYULUENSIS* var. nov.

Very like *S. neavei*, Bez.* but with an additional hyaline spot at the outer end of the discal cell.

Holotype ♀, Chyulu Hills, alt. 5,600 feet, June, 1938, Coryndon Museum Expedition.

The specimen agrees with the description of *S. neavei*; length 3.0 mm., of wing 2.5 mm. It may be noted that there

* Bezzi, 1920, *Bull. Ent. Res.*, X, 257, Pl. xviii, fig. 6.

are two superior orbitals; the squamae pale, the halteres darker, yellow; the black abdomen is faintly grey-dusted or etched except the last tergite, which like the base of the ovipositor, is polished as in *neavei* also; further, in the latter, only the hind edge of the fifth tergite in the male is polished. The sixth tergite is three-fourths the length of the fifth.

The wing-pattern is similar to that of *neavei*, differing in the following points: the outer hyaline indentation the costa does not quite reach the third vein; there is an additional fair-sized hyaline spot in the discal cell touching the vein just below the upper cross-vein. There are one or two setulae at the base of the third vein and three or four over the first posterior cell; this is like what is found in a female of *neavei* that I have, but in a male there appear to be only one or two very minute setulae over the first posterior cell. In any case the setulae are extremely difficult to observe.

METASPHEINISCA BEZZIANA (End.)

Enderlein, 1911, *Zool. Jahrb.*, 31, 424, fig. F. *Trypeta*.
Bezzi, 1918, *Bull. Ent. Res.*, 9, 22; 1924, *id.* 15, 125. *Tephrella*.
latincisa, Bezzi, 1924, *Bull. Ent. Res.*, 15, 123; Munro, 1935, *Ann. Mus. Nat. Hung.*, 29, 14. Fig. 8—wing ♀. *Aciura*.

This is a very striking species that may be included in *Metasphenisca* on account of the shape of the lunule. Having examined Bezzi's type and another female sent to me by Dr. van Someren (Chyulu Hills, alt. 6,000 feet, June, 1938, Coryndon Museum Expedition) there is no doubt that Bezzi's species is the same as that of Enderlein.

There seem to be normally two superior orbital bristles, but in the Chyulu Hills specimen the upper on one side is absent (apparently not abraded), the other small. In Bezzi's type the antennae are broken off; it may be noted now that the third joint is somewhat narrowed outwardly, the upper edge straight, the arista short pubescent.

BARYGLOSSA TERSA, n.sp.

Differs from *B. histrio*, Bez., in the absence of stripes on the rather light brownish-yellow dorsum of thorax. *B. bequaerti*, Bez., also has the thorax unstriped, but it has a very different wing-pattern.

Holotype ♂, allotype ♀ and a pair of paratypes, Kibwezi, Kenya, June, 1938, van Someren (Chyulu Hills, Coryndon Museum Expedition, alt. 3,000 feet). Bred from flowers of a cucurbitous plant.

Length ♂ 4.4 mm., ♀ 5.0 mm.; of wing ♂ 4.0 mm., ♀ 4.2 mm. *Head* yellow, only ocellar dot black and lower part of cheeks and sides of epistome brown; proportions of length, height and width, 7:8:11, rather square in profile; occiput flat above moderate below, the bristles thin and black; frons flat, strongly projecting before eye, the fronto-facial angle a little less than a right angle, as long as wide and not quite half width of head, bristles black, rather long and thin, two superior orbitals, two lower as a rule, but in male type there are three, ocellars long; lunule linear, inconspicuous; antennae about as long as short face, third joint large, rounded-oval, arista brown, bare; face short with strong median keel on each side of which strongly concave, the epistome projecting moderately; cheeks very narrow in their middle portion, genae narrow; eye large; palpi large, the narrower, darker, basal part jointed to apical half which is leaf-like and oval, yellow in colour, normally the palpi seem to be carried well forward, pressed against the inner part of the epistome and projecting beyond it; proboscis yellow, massive, stumpy. *Thorax*: dorsum light brownish-yellow, pleura paler becoming yellow on sternites; dorsal pubescence blackish, pleural yellow; no stripes on dorsum only lower part of humerus, a narrow, indistinct notopleural stripe, end of scutellum between apical bristles and post-scutellum brown or brownish to blackish; bristles complete, black, thin; inner and outer (sometimes duplicated) scapulars thin, two humerals, the upper smaller, three mesopleurals, the third smaller and in front of the usual upper one, dorso-centrals on line of outer posterior supra-alar (it may be noted that on the dorso-central line a few hairs among the rather long pubescence are developed almost bristle-like), pteropleural and sternopleural moderate. Scutellum short, moderately convex, with black pubescence and six bristles, the middle pair about half the length of the others; upper squama dark with blackish rim, lower yellowish, almost linear. Legs pale yellow with yellow clothing, but the row of bristles on fore femora and some of the stronger hairs on the hind, brown. Halteres yellow. Wing (fig. 2); the pattern is a more reduced reticulation than that shown in Bezzi's figure for *B. histrio* although basically similar; the middle part of the discal cell and most of the third posterior is hyaline, and the apical fork not well-marked; no costal bristle; third vein strongly setulose almost to its tip. *Abdomen* coloured as dorsum of thorax, shining, and with black marks as follows: on third tergite on each side an oval, sub-lateral spot, on the fourth the lateral third a broad tongue extending inwards on the anterior portion of the segment, thus leaving a somewhat pandurate, yellow area on the middle, the fifth mostly black, only a narrow, pestle-shaped area in middle. There is thus a com-

plete yellow median stripe, not present in *histrio*. In the female the lateral black marks on the fourth segment leave a narrow yellow margin on the anterior edge, but the marks are somewhat variable in extent, the very short sixth segment is only slightly yellowish in the middle of the fore edge. Venter and membranes yellowish. Male genitalia shining black, with long hairs. Base of ovipositor 1.0 mm., shining black with black pubescence, conical, rather flattened basally.

TRYPETA PERINGUEYI (Bez.)

Bezzi, 1924, *Ann. S.A. Mus.*, 19, 488, Pl. xiii, fig. 37, ♀; *Bull. Ent. Res.* 15, 111 (*Phorellia*).

Munro, 1925, *Union S. Afr. Dept. Agric., Ent. Memoirs* 3, 51; 1929, *id.* 6, 13 (*Phorellia*); 1935, *id.* 9, 48 (*Trypeta*).

The type is a damaged female from the Cape Peninsula in the South African Museum, Capetown; I have a good female paratype from East London. The species appears to extend from the Cape Peninsula, round the southern coastal area, then northwards through Natal and on to Kenya, where Dr. van Someren has bred it in numbers.

The male has not previously been recorded. It differs from the female in being generally smaller and the wing with a yellow, diffused pattern. Instead of the broadly M-shaped pattern formed of fairly well-defined bars, the latter become broadly connected longitudinally, so that the wing is almost entirely yellow with a few hyaline spots. Thus, the fore part of the wing is broadly yellow with only a small hyaline spot about the middle of the sub-marginal cell; the first basal cell is largely hyaline in the middle and the first posterior has a large spot at its base and one, less marked, outwardly; the discal cell is yellow; the second basal also yellow but broadly pale yellowish outwardly; the third posterior pale yellowish towards the end of the sixth vein. In some males the bars are more distinct as they are blacker and there are more extensive hyaline areas in the marginal, sub-marginal and discal cells, but there is always some longitudinal connection between the bars, especially in the discal cell.

The abdomen in both sexes is banded black and yellow, the anterior halves of the segments black, where they are also to some extent yellowish on the middle line.

Males seem to be generally less numerous than females. I have only seen one male from South Africa, a specimen collected in the Katberg, Cape Province, October, 1932, by Mr. R. E. Turner; this is in the British Museum collection. Several males were found in the material reared by Dr. van Someren in Kenya.