

NEW ETHIOPIAN FRUIT-FLIES OF THE GENERA TRIDACUS AND DACUS (DIPT.).

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Some additional fruit-flies of the genus *Dacus* (*s.l.*) from the Ethiopian Region have been recently submitted to me for study by the Imperial Bureau of Entomology, through the kindness of Dr. G. A. K. Marshall, the Director.*

The riches of the Ethiopian Fauna in forms of this genus seem to be inexhaustible, for even a small collection of these flies always brings to light new and often very strikingly characterised species. It is interesting to note that the tendency of the wings to be adorned with bands is more frequent in Africa than was previously believed, as is shown by the discovery of *D. hamatus*, Bezzi, and of the new *D. trigonus*, here described. In both these cases, however, the imagines at present known have the wing pattern of another type and much less evolved than that of the Oriental species of *Bactrocera*.

Genus TRIDACUS, Bezzi, 1915.

1. *Tridacus stylifer*, sp. nov. (fig. 1).

Easily distinguished from all the other known species of the present genus on account of its very simple wing pattern, even the brown anal stripe being quite

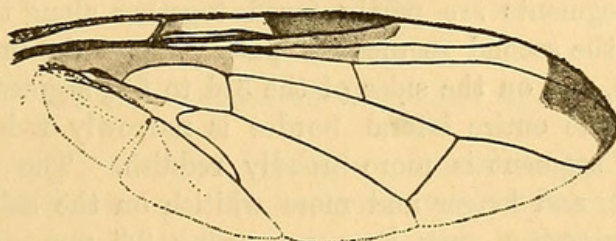


Fig. 1. *Tridacus stylifer*, Bezzi, sp. n.

wanting. Falling into section 16 of my Key (l.c., 89) with *humeralis*, which is however at once distinguished by the presence of a broad, fuscous anal stripe on the wings. In *Dacus scaber*, Loew, from Caffaria (possibly a *Tridacus*) the anal stripe seems to be wanting; but it is described as having a very short ovipositor, and an infuscated small cross-vein.

♀. Length of body, 6–7 mm.; length of wing, 6–7 mm. Head of a yellowish colour; occiput rather shining, reddish in the middle and above, narrowly yellow at the eye border above and more broadly yellow below; ocellar dot black, small; frons about twice as long as broad, of a rather dark yellowish colour, opaque, but shining on the narrow orbits and on the brownish vertical plates; it shows in the middle a rounded, reddish-brown spot, and is more pale in front, above the shining brown lunula; there are only 2 pairs of lower fronto-orbital bristles. Face entirely shining yellow, quite

* For the previous papers see: Bull. Ent. Research, vi, Sept. 1915, pp. 85–101, 14 figs., and viii, Aug. 1917, pp. 63–71, 6 figs.

unspotted; cheeks and jowls yellow, the latter with a not much developed reddish spot below the eyes. Antennae with the first joint shorter than the second; they are of a dark reddish colour, with the third joint blackened towards the tip; arista reddish on the basal part. Palpi and proboscis yellowish. All the cephalic bristles are black, only the genal bristle being dark brownish. Thorax of an opaque dark reddish colour on the disc, with a broad, rather shining, black patch on each side before the suture and above the notopleural line; along the middle line there is a narrow blackish stripe, broadening beneath the suture to form a broad patch before the scutellum; the dorsocentral lines are marked with a narrow, less distinct, more reddish stripe. The humeral calli are entirely shining yellow, with a narrow, reddish border above. The pleurae are shining reddish, with striking yellow markings, as follows: a broad, triangular, mesopleural patch, narrowly united in front with the humeral calli, and continued on the pteropleura and below with a small spot on the upper border of the sternopleura; this last spot, as well as the lower end of the mesopleural band is broadly margined with black. There is a single, rounded, hypopleural spot, which is very striking on account of the mesophragma being entirely black. Scutellum entirely yellow, with a narrow, reddish-brown, basal stripe, and with two bristles at the end. All the bristles are black; the anterior supra-alar is well developed, like the pteropleural one; the middle scapulars are not distinct, while the lateral ones are well developed; the very short pubescence of the back is more greyish, that of the pleurae longer and whitish, chiefly on the lower part of the sternopleura and on the breast. Halteres whitish yellow. Abdomen ovate, narrowed at base, convex, coloured and punctate like the disc of mesonotum; the segments are partly fused together along the middle line; the posterior border of the second segment is paler; along the middle line there is a narrow black stripe, and on the sides of the 3rd to 5th segments there is a broad black patch; but the entire lateral border is narrowly reddish, and the hind border of the last segment is more broadly reddish. The short pubescence is greyish on the disc, and longer and more whitish on the sides. Venter entirely reddish-yellow. Ovipositor very long, measuring 2.5 mm. in length, about as long as the abdomen; it is strong, cylindro-conical, shining reddish, with rather long, whitish pubescence. Legs rather slender, entirely pale yellowish and quite unspotted, only the four posterior coxae and the tarsi being a little more reddish; pubescence and hairs whitish; apical spur of middle tibiae black; claws black, with reddish base. Wings (fig. 1) long and broad, greyish hyaline, strongly iridescent, with reddish brown veins, which are blackened towards the end. The first four segments of the costa are of about the same length; the second longitudinal vein is short, the fifth segment of costa being thus longer than the preceding one; the third vein is less bent downwards at the end and is parallel with the last portion of the fourth, which is almost straight; lower end of the small cross-vein placed a little beyond the middle of the discoidal cell; the lower prolongation of the anal cell is proportionally broad and short, being only a little longer than the rest of the anal vein. The pattern is very reduced, consisting only of the yellowish stigma and a fuscous spot almost symmetrically placed across the end of the third longitudinal vein, but more developed below; the second costal cell is also slightly shaded at the base in front of the humeral cross-vein; the base of the first basal cell is

broadly shaded to form a dark border around the second basal cell; the anal cell and the anal vein are quite unspotted. There is sometimes a very faintly developed greyish shading at the end of the 5th longitudinal vein, below the lower apical corner of the discoidal cell.

Type ♀, and an additional specimen of the same sex, in the British Museum from British East Africa, Kabete, 28.viii.1914 (*T. J. Anderson*).

Genus *DACUS*, s. str., Bezzi, 1915.

2. *Dacus trigonus*, sp. nov. (fig. 2).

Falling like *hamatus*, into section 25 of my Key (l.c., p. 90), but distinguished by the broad, triangular, fuscous patch on the middle of the wings, as well by the small cross-vein being placed much beyond the middle of the discoidal cell.

♂. Length of body, 6.2 mm.; length of wing, 5 mm. Body entirely black, with proportionally narrow, but striking, yellow markings. Head entirely shining black, with very small yellow markings, as follows: a very narrow stripe along the ocular border of the occiput; a transverse spot on the upper border of the occiput, just beneath and below the vertex; a transverse band near the base of the frons in front of the ocelli, broadly interrupted in the middle; two narrow streaks on each side of

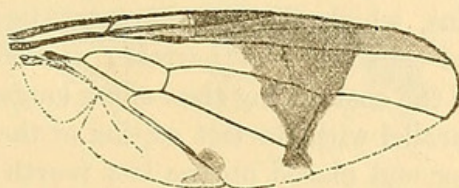


Fig. 2. *Dacus trigonus*, Bezzi, sp. n.

the frons near the eyes; a narrow border on each side of the face, in contact with the somewhat brownish cheeks. The frons on the middle is of a dark reddish-brown colour, and shining; the lunula is black; the face is quite black and glistening. Antennae very long, the first joint being porrect and about as long as the second; they are entirely blackish brown, the second joint being a little reddish below; arista black, with yellowish base. Palpi blackish brown, with a narrow yellowish border; proboscis black, with a dirty yellowish tip. The eyes are black on the hind half, with a perpendicular reddish stripe in front, and reddish on the fore half. The cephalic bristles are of a deep black colour; there are only two pairs of rather short lower orbital bristles. Thorax entirely black, punctate, rather opaque; on the disc of mesonotum there are two indistinct, broad, greyish, longitudinal stripes, enclosing a black middle stripe, which beyond the suture is divided to include a short yellow streak, ending much before the scutellum. Humeral calli shining black, with a rounded, pale yellowish, prominent spot on the hind half. Pleurae with a broad perpendicular stripe on the meso- and pteropleura, united above with a small yellow dot on sutural callus at the sides of the suture, and continued below with a small spot on the upper part of the sternopleura. The single yellow hypopleural spot is rather small, rounded, occupying only a part of the hypopleura. Scutellum yellow, with a narrow black basal stripe. Mesophragma entirely black, rather shining. The dust

of the back is greyish, like the short hairs of the pleurae; the very long hairs of the lower part of the sternopleura and breast are whitish. All the macrochaetae are of a deep black colour; middle scapulars well developed, and about as strong as the lateral ones; there is no trace, as it seems, of the anterior supra-alar bristles; pteropleurals short, but strong; scutellum with the apical pair alone. Halteres whitish. Abdomen entirely black, punctate like the thorax, but distinctly more shining; it is of a characteristic shape, being narrowed at base, and gradually dilated to the end, very convex at the middle, with almost parallel sides; the segments are distinctly separate, even along the middle line, on which there is no distinct keel; the last segment is glistening, and shows distinct traces of two oval, transverse spots of a reddish brown colour on the hind half. The short pubescence is whitish, but rather long on the sides of the first two segments; the lateral cilia of the 3rd segment are darker and more numerous, but not very long. Venter entirely black, greyish dusted; male genitalia very small, black. Legs rather short and stout, the front femora being distinctly incrassate; they have black coxae and black femora, but the latter are narrowly reddish at the tips, and those of the last pair are pale yellowish on the basal two-thirds; tibiae and tarsi whitish yellow, but all the tibiae, and chiefly those of the front pair, are darkened towards the base; pubescence whitish, longer than usual; apical spur of middle tibiae black; claws whitish like the pulvilli, but with black tips. Wings (fig. 2) proportionally short, with dark brown or even black veins, which show a characteristic disposition. The costal, marginal and submarginal cells are very narrow; the second longitudinal vein is short, the fifth segment of the costa being thus much longer than the preceding one; third vein straight and parallel with the last section of the fourth; small cross-vein long and oblique, its lower end placed on the last fourth of the discoidal cell, and thus the cross-vein itself is longer than its distance from the upper end of the posterior cross-vein; lower prolongation of the anal cell very long and very narrow, being considerably longer than the terminal part of the anal vein; this last vein is less divergent from the fifth, and thus the axillary lobe is longer than usual. The wings are greyish hyaline, iridescent, and have a very characteristic pattern, consisting of a broad, fuscous patch of triangular shape, the base of which is placed along the fore border, including the stigma, the whole of the marginal, and the central part of the submarginal cell, and the vertex is on the outer lower corner of the discoidal cell, ending obtusely in the 3rd posterior cell. The terminal part of the submarginal cell is yellowish. Besides there is a greyish spot above the 6th longitudinal vein, just beyond the end of the prolongation of the anal cell. The two cross-veins are both included in the fuscous central patch, but the posterior one is nearer the hind border of the patch. The first basal cell is quite hyaline at base, even above the second basal cell.

Type ♂, a single specimen in the British Museum from S. Nigeria, Oshogbo, 9.xii.1910 (Dr. T. F. G. Mayer).

3. *Dacus macer*, sp. nov. (fig. 3).

Falling into section 21 *d* of my additional Key of 1917 (p. 64), and nearly allied to *D. mochii*, from which it is distinguished by the quite black abdomen, by the entirely infuscated submarginal cell and by the not infuscated base of the small cross-vein.

♀. Length of body, 6·5 mm. ; length of wing, 5·5-mm. Occiput entirely black, and very glistening ; at the middle of the upper border, just behind and below the vertex, there is a faintly developed, yellowish spot ; there is no yellow ocular border on the upper half, but a broad yellow spot near the eyes on the lower half, contiguous with the yellow jowls. Frons with more than the basal half black, while the rest is yellow ; but the black basal part has a yellowish spot on each side just in front of the vertical plates ; it is opaque, but shining at base and on sides ; lunula shining black ; it seems that two pairs of lower orbital bristles are present. Antennae with the first joint shorter than the second ; they are infuscated, almost black on the outer side, pale yellowish inwardly at end of the 2nd and at base of the 3rd joint ; arista with yellowish base. Face shining yellow, with quite unspotted antennal grooves ; cheeks more whitish ; jowls yellow, quite unspotted. Palpi and proboscis yellowish. All the cephalic bristles are black. Thorax entirely black, rather shining, even glistening in front and on sides, punctate ; the pale yellowish markings are as follows : an elongate spot, occupying about the whole of the humeral calli, except the upper anterior part ; an oblique and more whitish spot on each side of the suture, in contact with the dorsocentral line inwardly, but far apart from the sutural calli, which are shining black ; a broad, middle patch on the pleurae, including about the whole of meso- and pteropleura, continued below as a rounded spot on

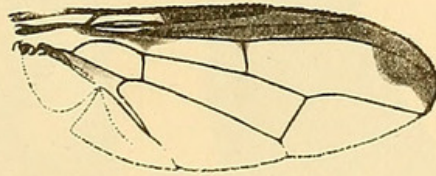


Fig. 3. *Dacus macer*, Bezzi, sp. n.

the upper border of sternopleura ; a single hypopleural spot of rounded shape. Mesophragma quite black. Scutellum yellow, with a black basal stripe. The rather long pubescence of the back is whitish, like that of the pleurae ; the long hairs on the breast are white. Macrochaetae black ; middle scapulars wanting ; no trace of anterior supra-alars ; pteropleurals well developed ; two scutellars. Halteres whitish. Abdomen rather narrow and long, of elongate-oval shape, entirely black, punctate and pubescent like the mesonotum ; it is convex, and the segments are fused together ; venter black ; ovipositor glistening black, conical, whitish pubescent, measuring not quite 1 mm. in length ; it is broad and swollen ; its apical segment is reddish. Legs rather slender and entirely pale yellowish, or even whitish ; only the four posterior coxae are darkened ; pubescence white ; tibial spur black ; claws black, with reddish base. Wings (fig. 3) hyaline, iridescent, with brownish veins, which are darkened distally. Costal, marginal and submarginal cells very narrow ; stigma long ; fifth segment of the costa considerably longer than the preceding one ; third longitudinal vein strongly curved downwards beyond the middle of its last portion ; first posterior cell very broad ; lower end of the small cross-vein placed a little after the middle of the discoidal cell ; last portion of the fourth vein almost straight, being only a little curved near the base ; prolongation of the anal cell very narrow and very short, being not longer than the rest of the anal vein. The pattern consists of a dark

fore border, which leaves the costal cells hyaline but includes the whole of the submarginal cell, and is dilated at the end to form a not broad apical spot, filling obliquely the end of the first posterior cell. The stigma is of a deeper black. The small cross-vein is faintly shaded at its upper end only. The base of first basal cell above the second basal cell and the dilated part of the anal cell are a little infuscated. There is no trace of an anal stripe or of a greyish spot at the end of the sixth vein.

Type ♀, a single specimen in the British Museum from Uganda, Kampala, 24.xi.1917 (C. C. Gowdey).



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