PLATES IN VOL. IV.

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HE ANNALS

OF NATURAL MAGAZINE

[TENTH SERIES.]

f............... per litora spargite muscum. Naiades, et circum vitreos considite fontes: Pollice virgineo teneros hic carpite flores: Floribus et pictum, divæ, replete canistrum. At yos, o Nymphæ Craterides, ite sub undas Ite, recurvato variata corallia trunco Vellite muscosis e rupibus, et mihi conchas Ferte, Deæ pelagi, et pingui conchylia succo." N. Parthenii Giannettasi, Ech. L.

No. 19. JULY 1929.

I.—New African Diptera. By E. BRUNETTI'*.

Leptidæ.

Atrichops nigromaculata, sp. n.

d.-Head. Ocellar tubercle barely elevated, occupying practically whole vertical space, blackish, whitish on hind margin; ocelli whitish grey, hinder pair smaller and flatter; interocular space very narrow, black; the large triangular frons flush with eyes, bluish-grey dusted, as is also whole head below antennæ except proboscis and palpi, which, with the antennæ, are all bright orange. Occiput very concave, bluish-grey dusted, lower part shimmering in certain lights with some rather long pale pubescence.

* The descriptions printed in the following pages are based on material supplied by the Imperial Bureau of Entomology, and were found among the manuscript papers of the late Mr. Brunetti. The types have been presented to the British Museum.

Any alterations or additions made by myself have been placed in

square brackets.—D. AUBERTIN.

Ann. & Mag. N. Hist. Ser. 10. Vol. iv.

Thorax. Dorsum black; humeri, side-margins, hind corners, scutellum and narrowly around bases of wings brownish yellow. Pleuræ bluish-grey dusted, nearly bare.

Abdomen yellow; first two obvious basal segments with a median moderately broad black stripe; second segment has in addition a moderately rounded black spot towards each side; third segment with a median large rounded black spot. Rest of abdomen more orange-yellow, genitalia concolorous. Venter yellow. Pubescence of abdomen short, inconspicuous, yellowish.

Legs yellow; tibiæ and metatarsi obscurely ochraceous, tarsi more blackish. A little short, very fine pubescence on coxæ, front and middle femora; rest of legs with minute

inconspicuous black pubescence.

Wings pale yellowish grey, stigma yellow.

Halteres orange. Length 7 mm.

Described from one &, Southern Rhodesia, Saw Mills, 26. xii. 1919 (from the Rhodesian Museum).

Atrichops varicolor, sp. n.

Q.—Head bluish grey. Frons flush with eyes, with parallel sides, about one-fifth width of head, with a little fine brown, moderately long pubescence; middle third or more occupied by a large velvet-black spot, its upper edge just embracing the ocelli. Antennal first and second joints blackish with a little grey dust, third bright orange, arista black. Proboscis and palpi blackish, with brown pubescence. Occiput bluish grey, slightly projecting behind eyes, with dense fine long white pubescence and a very large velvet-black spot on upper part on each side of median line.

Thorax shining black with short fine black hairs; in certain lights two median, well-separated bluish-grey dust-stripes can be seen; the same coloured dust appears over humeri and broadly at ends of suture. Anterior corners of humeri brownish. Pleuræ bluish grey, with short white pubescence. Scutellum concolorous with dorsum, similarly

clothed.

Abdomen. First segment black, second mainly yellowish, with a narrow median stripe which widens hindwards, and a narrow black hind margin; third and fourth segments dark chestnut-brown, hind margins more or less blackish, fifth orange-red, with hind corners narrowly black, sixth and seventh mainly orange-red, sides more broadly black. Pubescence of abdomen inconspicuous pale, but black on black

parts of last segments. Venter on basal half whitish yellow, with a broad black median stripe on third and fourth sternites, remainder orange-red with black sides; tip of venter black.

Legs shining blackish brown; about apical two-thirds of fore femora, apical third of middle pair and base and tip broadly of hind pair, yellowish. Middle tibiæ and metatarsi

vellowish.

Wings from base to level of cross-veins pale grey, beyond that point distinctly brownish; costal cell yellowish; stigma dark brown, the colour carried hindwards in diminishing intensity.

Halteres blackish.

Length 11 mm.

Described from one \circ ; Uganda: Kampala, 13. vii. 1911. The striking differences of colour should make the species easily identifiable.

Atrichops dimidiatipennis, sp. n.

Q.—Head. Vertex and frons flush with eyes; frons with very slightly diverging sides, forming at middle of head one-fifth of that width; upper and lower parts ash-grey with fine sparse black bristly hairs; about the middle third dull black with long dense black-brown hair. Epistome ash-grey dusted, only slightly prominent. Antennæ orange, upper side of first joint blackish. Proboscis and palpi all orange. Occiput ash-grey in ground-colour, with fine white pubescence, but quite black towards each side of upper part, with black pubescence, the colour extending thence towards the centre.

Thorax moderately sbining blackish with greyish reflections seen at certain angles, and an obvious though not conspicuous broad median grey dust-stripe with linear sides from anterior margin to scutellum. Pleuræ and scutellum blackish, with greyish reflections; humeri brownish, entire scutellar margin broadly brownish yellow. Pubescence of thorax short, fine, black, except on pleuræ, where it is whitish.

Abdomen all brownish yellow, slightly deeper towards tip; second and third segments considerably blackish in middle of discs; side-margins of [second and] fifth narrowly blackish brown. The sixth segment with a peculiar yellowish-grey stripe towards each side, parallel with it, but set upon a restricted blackish background. Venter brownish yellow; discs of segments more or less infuscated.

Leas. Fore coxæ and femora, middle femora, basal third, and nearly apical third of hind femora brownish vellow. Middle tibiæ and tarsi obscurely yellowish. Front tarsi much longer than the front tibiæ; middle third of hind femora, tibiæ and tarsi black. Middle and hind tarsi much shorter than those of front legs. Pubescence of legs short, uniform, black; coxæ with blackish-brown pubescence apically on posterior pairs, but to a much less extent on fore pair. A little fine whitish pubescence on front side of fore coxæ and on apical third of under side of fore femora; some fine pale pubescence on lower side of middle femora.

Wings grev on basal half, smoke-grey on remainder, the dividing-line passing just before costal cell, just after base of first submarginal cell, and touching tip of second basal cell. Rather brownish from middle of costa hindwards, the colour dying away behind middle of wing.

Length 10 mm.

Described from two & &, Nigeria: Ibadan, type, 27. iii.

1923; co-type, 10. viii. 1920.

In the co-type there is more black on the abdomen, and the scutellum is almost wholly pale. A & from Uganda might possibly belong here. The essential characters are mainly identical, but the thorax is yellowish brown, the legs mainly yellowish, and the hind legs very much more pubescent. Uganda: Kampala, 17. xi. 1915 (C. C. Gowdey).

Nemestrinidæ.

Prosæca olivacea, sp. n.

2,-Head. Vertical triangle very large, well raised, with dense, long, brown and yellowish bristly hairs; ocelli small, brownish. Frons less than one-third width of head, rather rapidly widening from above downwards, pale grey, covered with long whitish pubescence, as is also under side of head. First antennal joint grey-dusted, second orange-yellowish, with some long pale hairs above and below; third joint black, elongate, conical, with very long thin style. Proboscis black, about 13 mm. long. Occiput slightly concave, ashgrey, with whitish pubescence.

Thorax. Dorsum, pleuræ and scutellum dull olive-grey

with long dense brownish-yellow pubescence.

Abdomen. Darker brownish grey; second segment with long vellowish pubescence; rest of abdomen with shorter pubescence, but fourth and fifth segments with some long

fine hairs intermixed. Venter with similar long yellowish pubescence.

Legs all orange, except coxæ and base of femora more or less olive-grey. Pubescence whitish, long on inner, outer, and under sides of fore femora, front, hind and under sides of middle pair and inner, outer, and under sides of hind pair.

Wings pale grey, venation normal.

Halteres yellowish, with blackish clubs.

Length 9 mm.

Two ♀♀, Natal: Willow Grange, 25. iii. 1914 (R. C.

Wroughton).

The species runs down to P. accinota, Wd., in Prof. Bezzi's table of African species (Ann. S. Afr. Mus. xix. p. 175), P. olivacea differing from it by the absence of the fuscous spots on the wings.

Atriadops cinnamonea, sp. n.

♀ .--Head. Frons with dense, depressed, mouse-brown pubescence. Antennæ a little yellowish; apical half of third joint and the long arista blackish. Face brownish grey, with long, dirty whitish-grey pubescence; lower part of head similarly clothed; occiput flush with eyes, greydusted.

Thorax. Ground-colour mouse-brown; dorsum with long dense pubescence which is mouse-brown on the disc, rather paler towards sides and on pleuræ and nearly whitish on hind corners of dorsum.

Scutellum with pale mouse-brown pubescence.

Abdomen blackish brown, with sparse, very short, yellowish pubescence; venter similar. Ovipositor ending in two very long, slender, cylindrical styles.

Legs yellowish; fore coxæ with long, dense whitish pubescence; femora a little more brownish. Pubescence of legs yellowish, rather sparse, that of femora black; a distinct fringe of such pubescence on under side of all three

pairs, and also on front side of middle pair.

Wings dark cinnamon-brown; central part of first and second basal cells, also hind margin of wing basally a little paler; a small elongate yellowish-white spot placed transversely at about two-thirds the length of the wing lying between first and third veins; tip of fourth vein broadly black infuscated, also subapical section of fifth and tip of sixth.

Halteres brownish vellow.

Length about 9 mm.

In the second specimen the pubescence on the face and sides of the thorax is a little whiter, and the wings are rather

less dark.

Mydaidæ.

Rhopalia tutankhameni, sp. n.

Head about three times as wide as long. Frons and face with uniformly curved sides (concave); at level of antennæ distinctly more than half width of head, black, covered, though not densely, with long bright yellow rather shaggy hair; a margin of yellow dust along sides of face. Oral region bright orange; mouth-opening large, oval, interior edge black-bordered; proboscis elongate, subcylindrical. moderately slender, about half as long as antennæ, horizontal; labella rather large. Antennæ bright orange, except first joint a little black at base above; quite bare except for a short yellow hair on upper side of first and second joints: first joint short; second very short, practically annular, third with stem more than three times as long as first and second joints together, the elongate club nearly as long as the stem. Occiput considerably concave, black, with vellow dust and a little short pubescence.

Thorax bright orange-brown with a somewhat reddish tint in centre of dorsum; a median moderately wide black stripe from anterior margin nearly to middle; pleuræ mainly black, bare, but humeral region and immediately around base of wings yellowish orange. Scutellum very small, reddish orange, base and centre blackish; metanotum shining black, but orange on basal corners. Pubescence or thorax confined to a little short bright yellow hair on dorsum.

rather longer in front of wing-base.

Abdomen orange-yellow; second segment with a short, deep black, narrow elongate mark toward the sides on hind margin; extreme base of most of remaining segments a little brown. Genitalia shining reddish orange, with a number of shining more or less carmine spines. Pubescence of abdomen limited to a little, short, bright yellow hair on anterior margin of first segment. Venter black, segmentations a little yellowish.

Legs bright orange to tarsi-tips, but the coxæ mainly blackish; hind femora below with two rows of about seven rather long yellow spines; a little inconspicuous yellow

pubescence on hind legs, the pubescence still less noticeable on anterior pairs except for a few isolated long stiff yellow hairs on outer side of middle tibiæ; claws black.

Wings rather dark blackish brown, but nearly basal third

and all costal and subcostal cells yellowish.

Halteres orange-yellow.

Described from a perfect ? . Anglo-Egyptian Sudan,

Erkowit, 17. v. 1917 (H. H. King).

The species is named after the Egyptian Pharoah, whose tomb was opened on the day of its description.

Rhopalia flavomarginata, sp. n.

Q.—Head. Frons and face taken together distinctly broader above than below, at middle line of head occupying about half width of head. Middle part of frons shining black, uneven; sides broadly yellowish grey, with moderately long greyish pubescence. Sides of face similarly coloured, with concolorous pubescence; mouth-region orange-brown, slightly prominent in profile, with long greyish pubescence. Antennæ orange-brown, first and second joints cylindrical, second half as long as first, third black, narrower on basal half than second, and as long as first and second together: club large, oval, as long as rest of third joint, black, wholly orange on inner side. Proboscis extremely short, black, barely projecting from mouth-opening; lower part of head hardly projecting below eyes in profile, occiput only slightly projecting, grey-dusted, with some long pale hair on lower part : centre blackish.

Thorax yellowish-grey dusted, with short yellow hairs. Three black stripes of usual pattern, subequal in width, median one reaching anterior but not posterior margin, outer ones shortened in front but attaining hind margin. Humeri conspicuously orange, shining, bare. Pleuræ black, nearly bare, orange about base of wing; an oval, yellowish-grey dust-spot below humeri and a triangularly shaped one

on hypopleura.

Abdomen shining black; hind margins of all segments with clear-cut orange-yellow bands of about one-fourth to one-third length of each segment. A large whitish-yellow spot on anterior corners of first segment. Whole dorsum with sparse, very fine, short yellow hairs. Venter practically a replica of dorsum. Genitalia reddish orange, with a row of fine similarly coloured blunt spines on each side and short yellow pubescence.

Legs orange-yellow; anterior coxæ and a spot on outer

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side of hind pair black. Hind femora considerably and uniformly incrassate, with four rows of spines on apical half of under side, the two inner rows of about seven or eight spines each, the two outer rows of four to five spines each. Under side of hind femora blackish. Pubescence of legs hardly noticeable, pale.

Wings pale grey, a barely preceptible brownish infuscation

along veins in anterior and middle parts of wing.

Halteres yellow. Length 12 mm.

One \circ , South Rhodesia, Matopos, 2. v. 1920 (sent by Rhodesia Museum).

Mydas ignicornis, sp. n.

? & -Head. Eyes with inner margins decidedly concave, equally widely separated at upper and lower levels; in middle line, from half width of head. From and face black, with long rather shaggy yellow hair: vertex considerably sunk: ocellar triangle placed at upper end of median ridge. Face immediately below antennæ brownish orange, with a median blackish line; mouth-border also brownish orange; sides of face yellowish-grey dusted. Antennæ wholly fiery-red, quite bare; first and second joints rather more brown, second barely half as long as first; third more slender than first or second, cylindrical, about three times as long as first and second together; club obtusely ovate, widest at tip, threefourths as long as third joint and two or three times as wide, with a very short obtusely pointed apical joint. Proboscis brown, black above, barely extending as far as third antennal joint. Occiput black, margin broadly yellowishgrey dusted, a little inconspicuous vellowish pubescence on its lower part.

Thorax orange-brown, centre of dorsum blackish (? discoloured); pleuræ and scutellum concolorous; stenopleura, lower parts of mesopleura, and hypopleura black; metanotum black behind. Whole thorax nearly bare, dorsum micro-

scopically punctate.

Abdomen more than twice as long as thorax, microscopically punctate, mainly orange-brown, subcylindrical, very slightly narrower in middle. First segment black, with band of yellowish pubescence on hinder half, and a transverse patch of greyish pubescence on anterior corners; a narrow, irregularly outlined, transverse black band over junctions of second and third segments and again over those of third and fourth; second and third segments narrowly livid yellow

on hind margins. Bases of fifth, sixth, and seventh segments broadly but irregularly blackish. Abdominal pubescence very sparse. Venter orange-brown; hind borders of first to fourth segments narrowly livid yellowish. Genitalia orange-brown, mainly concealed.

Legs orange-brown. Hind femora gradually enlarged apically, with two parallel rows of five or six short blunt spines on distal half. Pubescence of legs quite inconspicuous,

vellowish.

Wings yellowish brown on anterior half, darker brown in first basal cell (except at base) and from its tip to tip of wing, also along outer side of discal cell. Discal cell itself and anal cell nearly clear; rest of wing pale yellowish grey.

Halteres dark brown.

Length 20 mm.

One specimen, apparently a 3, Rhodesia, Bulawayo, Hillside, xi. 1916 (sent by Rhodesia Museum).

Leptomy das suffusipennis, sp. n.

3 ♀.—Head. From and face with sides gently curved outwards, broadest at level of antennæ, where they occupy more than half width of head; both wholly covered, as are also vertex and lower part of head; with long, rather shaggy, greyish-white hair, through which the shining black groundcolour is visible. Antennæ cylindrical, first joint twice as long as wide, shining black, with a few fine pale hairs; second joint extremely short, black, with some soft pubescence; third long, about three times as long as first and second together, slender, the club half as long as the joint but broader; broadest at a little beyond centre, bare, a vellowish irregular band across the middle; a small but obvious obtuse conical apical joint, bare. Proboscis black. shorter than antennæ; occiput barely projecting behind eyes in profile, yellowish grey, with a little short concolorous pubescence, head barely projecting below eyes.

Thorax. Dorsum brownish grey; humeri and side-margins more or less dull orange-brown; four dorsal black stripes, of which the median ones are closely approximated, reaching front margin, the outer ones beginning just behind humeri; all four stripes barely attaining hind margin. Pleuræ brownish or greyish, varying in parts. Scutellum blackish, metanotum rather prominent, grey-dusted, with long erect whitish hairs. Whole thorax with short yellowish or greyish pubescence.

Abdomen elongate cylindrical, gradually tapering a little

to tip, about three times as long as thorax (and scutellum). Ground-colour black, moderately shining; first segment shining dark blackish brown, hind margin broadly brownish vellow, the colour with well-defined outlines; second segment brownish yellow, with an impressed transverse line just beyond base; a moderately large blackish spot on anterior corners and a small oval black spot on each side nearly contiguous to hind margin. Third, fourth, and fifth segments with dorsum and sides brownish yellow, with a similar, moderately large, black triangular spot on each anterior corner; sixth segment with hind margin moderately widely brownish yellow. Pubescence of abdomen sparse and grevish, except on first segment, which is nearly covered with it, and on anterior corners of second segment, where it is much longer and denser. Venter yellowish brown, more or less blackish in centres of segments. Genitalia in & exposed in type; a broadly bifid dorsal plate, with an elongate well-curved sheath protecting the penis, projecting upwards between the lobes of the plate; a large more or less globular piece bearing on upper side a pair of moderatesized claspers, and a short, somewhat keel-like, ventral plate: all the organs rather dark brown, with lighter parts; all covered with moderately dense, fairly long, yellowish soft hairs. Genitalia in 2 small, protected by a row of seven (type ?) or eight (co-type ?) moderately long and thick blunt spines towards one side.

Legs brownish orange, coxæ brownish-grey dusted, upper sides of femora more or less blackish; pulvilli pale yellowish, claws black. Pubescence of legs pale yellowish, sparse, a little longer on tibiæ, longest on inner side of hind pair. Hind femora with two short parallel rows of short spines

below on apical half.

Wings pale grey, all veins rather broadly but only just obviously suffused with pale brown; venation normal.

Halteres yellowish, with brownish knobs.

Length 16-18 mm.

Bulawayo, 23. ix. 1923, type \Im ; 9. ix. 1917, type \Im ; 30. ix. 1923 and 24. ix. 1913, co-type \Im \Im , all sent by the Rhodesia Museum.

Therevidæ.

Phycus breviscapus, sp. n.

J.—Head. Eyes most nearly touching at level of ocellar tubercle; from widening thence to double its width at a

little above antennæ, at which point it is rather wider than a quarter of the head; shining black, smooth, bare. Ocellar tubercle moderately raised, filling space between eyes; ocelli brown. Lower part of from with whitish-grey reflections. First antennal joint relatively shorter than in P. brunnipes, Wd. (an Oriental species), second joint one-third length of first, third nearly double as long as first; first and second black, with usual bristles, third grey-black, bare, with minute apical cylindrical style. Face with whitish-grey reflections viewed from above, blackish viewed frem below, bare. Proboscis brownish yellow. Occiput mainly blackish with black bristly hairs, but ash-grey on lower part, where it projects a little in profile, bearing a distinct yellowish-grey fringe.

Thorax shining black, dorsum with yellowish-grey pubescence; pleuræ shining black, nearly bare, with greyish reflections; sternopleuræmicroscopically grey-dusted; scutellum black with grey reflections. One dorsocentral (scutellar) bristle, one supra-alar, one postalar, two notopleural, one

apical scutellar, all strong and subequal.

Abdomen shining black; hind margins of second and third segments narrowly but distinctly cream-yellow, with a fringe of white hairs; first, second, and third segments towards sides clothed with whitish hairs. Pubescence of rest of abdomen blackish brown. Genitalia blackish brown, black pubescence, a nearly oblong dorsal plate prominent, also a pair of claspers which are obtuse and reddish at tips. Venter approximately as dorsum.

Legs. Fore coxæ, fore femora, middle femora, and middle tibiæ brownish yellow, posterior tarsi obscurely so; rest of legs shining black. A few long bristly black hairs at tips

of coxæ; pubescence of legs otherwise negligible.

Wings nearly clear, but costal cell and wing tip as far inwards as outer side of discal cell distinctly brownish infuscated, the submarginal cell having a small nearly hyaline spot near tip; fourth posterior cell considerably narrowed at tip.

Halteres brownish, clubs black.

Length $7\frac{1}{2}$ mm.

One 3, Uganda, 20. iii. 1925 (H. Hargreaves). The relatively short first antennal joint is the principal character of this species; in the Indian species it is as long as the third joint.

Phycus sobrinus, sp. n.

2. Very near P. fuscipennis, A. Costa, of S. Europe, but

differing in several points. First antennal joint a little longer than second and third together, second joint about one-seventh the length of the first, dark brown, covered only with uniformly very short bristly black hairs. Frons and face with gently and uniformly curved sides, at level of antennæ a little over one-third width of head; a broad transverse white space below antennæ from eye to eye. Frons with a narrow bordering of white dust each side on lower half.

Thorax with very short yellowish-grey pubescence; pleuræ

grey-dusted, but nearly bare of pubescence.

Legs blackish brown; about middle half of fore femora brownish yellow below; all knees very narrowly brownish vellow.

Wings quite clear grey, with hardly a suspicion of brown, anterior margin not darker; fourth posterior cell closed

distinctly before border.

In all else closely as in description of P. fuscipennis by Röder of a 3 received by him from Loew as Phycus tristis, Loew [Berl. ent. Zeitschr. xxix. p. 140, 1885].

Length 6 mm.

Described from one 2 from Khartoum, 31. xii. 1917 (R. Cottam).

Platypezidæ.

Platypeza thomasseti, sp. n.

3 ♀ .—Head in 3 with upper facets of eyes bright brown, closely contiguous for fully half their length, very clearly demarcated in size and colour from the small black lower ones. Vertical triangle filled by the black ocellar tubercle with shining brownish-red ocelli. Face and antennæ moderately dark ash-grey. Occiput black, bare except for a little short black pubescence on under side. In 2 frons moderately shining black, widening gradually to vertex, at a little above level of antennæ less than one-third width of head. Ocelli conspicuous, set in a vertical depression: antennæ blackish; face ash-grey, the colour extending a little over lower part of frons; mouth-opening more or less blackish.

Thorax in 3 dull black, hinder half of dorsum glistening bluish grey, not extending to scutellum. Only the hindmost pair of dorsocentral bristles present (apparently), well separated. In 2 thorax blackish grey with two narrow median brownish stripes sufficiently obvious, the grey shimmer less conspicuous but covering dorsum of scutellum also.

Abdomen dull velvet-black with a few sparse fine black

hairs; venter black, yellowish basally.

Legs brownish yellow, darker in parts; femora on apical half more or less black. Tarsi in & normal; first joint yellowish with black tip (type o), remaining joints black; seen in profile, first three joints with upper and under sides subequal in length, fourth a little shorter but only half as wide, fifth similar to fourth, but a little smaller. Hind tarsi in Q with first joint as in 3, second much longer on upper than on under side, third much longer than in &, fourth much larger than in 3, upper side much longer than under, fifth as in 3 but very much smaller than fourth. Colouring of legs evidently variable, judging from the 2 & d and 1 ? before me.

Wings clear, distinctly brownish at tips from just before tip of first vein down to bend in fourth vein, where the colour dies away proximally.

Halteres very large, black.

Length about 3 mm.

Natal, Weenen, iii. 1925, type & \co. iii.-iv. 1925, co-type &

(H. P. Thomasset). The conspicuous brownish wing-tip easily characterizes this species.

Platypeza natalensis, sp. n.

¿.-Head. Eyes quite contiguous for a considerable distance, large and small facets well delimited; vertex filled by well-raised blackish ocellar tubercle, ocelli brownish, inconspicuous. Frons and face ash-grey, practically bare. Antennæ brownish; mouth-opening and proboscis yellowish brown, palpi bright ferruginous, occiput black.

Thorax blackish, dull, scutellum similar, with one pair of rather weak apical bristles; pleuræ obscurely brownish

vellow.

Abdomen dull velvet-black, bases of segments from second onwards extremely narrowly ash-grey, also tip of ultimate segment; whole dorsum with fine pale sparse hairs. Venter whitish grey.

Legs obscurely brownish yellow; femora, especially hind pair, decidedly blackish except at base and tips; hind tibiæ dull black; first three tarsal joints dilated. Legs practically

Wings absolutely hyaline.

Halteres blackish.

Length about 2½ mm.

One o, Natal, Weenen, x. 1924 (H. P. Thomasset).

Syrphidæ.

Baccha sinuata, sp. n.

flush with eyes, with a little blackish-brown hair; ocelli small, distinct, shining brown, the anterior ocellus at extreme tip of vertical tubercle. Frontal triangle large, prominent, shining dark brown with bronze and purple reflections, changing gradually to brownish yellow on anterior margin. From with dark brown pubescence. Antennæ brownish yellow, first and second joints with usual bristly pubescence, third joint a little darker above, arista concolorous. Face prominent, brownish yellow, as are also proboscis and palpi; mouth-border darker. Some very short, sparse, pale yellow pubescence on face. Occiput and lower part of head æneous, former with whitish dust.

Thorax including pleuræ and scutellum all bright orangeyellow; four not very definite narrow longitudinal black stripes running nearly from front to hind margin; centre

of dorsum in addition indefinitely blackish.

Abdomen brownish ochraceous; tip of second segment with shining black band, subsequent segments more or less blackish towards sides on apical half. Pubescence of abdomen yellow and conspicuous at sides for some distance from base, that of dorsum very short and inconspicuous.

Legs yellowish, practically bare; hind coxæ, femora except

narrowly at tips, and apical half of hind tibiæ black.

Wings very broad, pale yellowish grey, nearly clear; first vein much blacker and more conspicuous than usual; costal cell smoky grey, stigma large, distinct, yellowish grey; third vein very sinuous, bending suddenly upwards at about middle of first posterior cell. Anal cell as in norm I species of this group.

Halteres obscurely vellowish.

In $\mathfrak P$, from about one-ninth breadth of head just below vertex, sides parallel for a short distance only, thence rapidly diverging; ocelli placed nearly midway between vertex and antennæ, no obvious tubercle but the from at that spot slightly swollen. A yellowish dust-band across froms, narrowed in middle just above frontal triangle. Rest as in $\mathfrak G$.

Length 9-10 mm.

Two & &, two & &. Gold Coast, East Province, Asamankese, 1926 (G. S. Cotterell) ("larva predaceous on cocoa Psylla").

The species comes in the group with strongly dilated wings, and is at once separated from all of them except B. extranea, Bezzi, by the wings being absolutely unmarked except for the smoke-grey costa and yellowish stigma. From B. extranea, Bezzi, it differs by the greater width of wing and brown coloration on the body.

Cerioides dilatipes, sp. n.

3.-Head. Eyes touching for a short space only; upper facets barely preceptibly larger than the others; vertex and occiput orange-brown, well elevated above level of eyes, distinctly and broadly black behind upper part, but disappearing in profile well before middle of eyes; the brown shining occili set direct on upper part of frons. Occiput black, entire margin broadly orange-brown, Antennæ orange-brown, third joint yellower. The very short lower part of frons below nearest approximation of eyes, and the face, dull yellow; two narrow median brown stripes on latter, and two others towards sides of face, beginning respectively below antennæ and at eye-margins, and all nearly reaching mouth-border. The rather narrow space between the two median stripes orange at its lowest point and distinctly prominent there. Mouth-opening and proboscis black, sides of head descending below eyes in profile to about half the height of an eye; lower part of occiput projecting a little behind eyes in profile.

Thorax. Dorsum black, finely punctuate and with very short yellowish-brown semi-depressed pubescence. Humeri, side-margins of dorsum indefinitely, and posterior corners orange-brown. Pleuræ mainly orange-brown, but indefinitely blackish on mesopleura, pteropleura, and ventral part. Scutellum orange-brown; hinder part of thorax below

scutellum blackish brown.

Abdomen with nearly parallel sides, barely narrower apically; black, finely punctuate; first and second segments subequal, indistinctly separated at sides; third a little longer than second, fourth about one and a half times as long as third. First segment largely, and front corners of second narrowly, orange-brown; second and third segments with very clear-cut lemon-yellow, moderately narrow hind margins. Genitalia formed of a large globular basal piece, orange-brown, with apparently small appendages on the under side. Venter black, with a little grey dust. Pubescence of abdomen pale yellow, very short, visible only at a low angle from in front.

Legs orange-brown, fore tarsi slightly but obviously dilated at base. Pubescence confined to a fringe of short pale hairs below middle femora.

Wings yellowish grey; brownish yellow anteriorly, limited posteriorly by the spurious vein and third vein, the apical part a little deeper; hinder half of second basal cell brownish yellow infuscated.

Halteres whitish.

Length 11 mm.

One 3, South Rhodesia, Saw Mills, 27. xii. 1920. From the Rhodesia Museum.

Cerioides subcastanea, sp. n.

d.—Head. Eyes separated at closest approximation by as much as distance behind the two hinder ocelli; facets practically uniform; occiput and frons a little raised above level of eyes, chrome-yellow; ocelli shining brown, placed direct on frons. Frons and upper part of face barely prominent in front of eyes, chrome-yellow; a semicircular brown spot (convex side upwards), in which are set the antennæ; a small brown stripe on each side from just below this spot running nearly to eye-margins; two narrow brown lines from upper side of mouth-opening, running upwards, diverging broadly, their upper ends turning inward a little (i.e., about halfway between mouth-opening and base of antennæ). Sides of face below eyes and the mouth-opening brown; proboscis black-brown. Occiput black, with margin broadly chrome-yellow, moderately broad behind vertex but very much narrowed behind greater part of eyes, yet a little broadened on lowest part. Antennæ bare, tubercle very low; first and second joints orange-brown, third darker brown, tip of style vellowish.

Thorax pale chestnut-brown, finely punctuate; two narrow, broadly separated stripes behind suture, not reaching hind margin of dorsum, but curved (convex side outwards); the humeri very prominent, a narrow short stripe on hind margin of mesopleura just in front of wing-base, and an adjacent similar stripe on front side of pteropleura, a broad one on upper part of metapleura, all lemon-yellow. Scutellum pale chestnut-brown, with margin lemon-yellow, continued as a ligature-like line thence to the wing-base. Pleuræ finely punctuate, pale chestnut-brown, with greyish-white dust; metanotum similar. Pubescence of dorsum microscopic, bright yellow.

Abdomen pale chestnut-brown, finely punctate; first

segment with a narrow, very clear-cut lemon-yellow hind margin; second segment not much longer than first, rather narrower towards tip; third much contracted on basal half, broadening rapidly to double that width on hind margin, which has a yellow band like first segment; fourth and fifth segments subequal, forming a large elliptical mass, fifth with broader orange-yellow clear-cut hind margin. All abdomen pale chestnut-brown except basal half of third segment and the chrome-yellow hind-marginal bands as noted. Genitalia concolorous chestnut-brown, globular. Pubescence of abdomen fine, short, bright yellow, seen best from in front. Venter a little darker chestnut-brown and more shining.

Legs darker chestnut-brown, traces of black on femora; base of tibiæ yellowish, tarsi black except basal joint, pulvilli yellow, claws black. Pubescence of legs inconspicuous, whitish.

Wings nearly clear, yellowish from costa to a little behind second vein; stigma barely obvious; broadly dark yellowish brown over tips of marginal and submarginal cells.

Halteres yellowish.

Length 13 mm.

One 3, Nyasaland, Ruo, 5. v. 1916, "on wild flowers" (R. C. Wood).

Conopidæ.

Conops argentispatium, sp. n.

J.—Head. Frons very dark brown, nearly chocolate; vertex with elongate dull brownish-yellow transverse subvesiculose spot. Antennal prominence and frons just above it orange-brown, as is also first antennal joint, second and third joints black, style two-jointed [style three-jointed], yellowish, with a very sharply pointed black tip. A black spot each side of frons on eye-margin just above level of antennæ. Face orange-brown, if seen from above, with yellowish-grey shimmer; mouth-opening and proboseis orange-brown with blackish parts. Occiput black, margin with grey or whitish shimmer.

Thorax black, with very small black bristles; dorsum yellowish-dusted; humeri dull orange-brown with whitish shimmer; pleuræ black with whitish shimmer; scutellum concolorous with dorsum; metanotum and metapleuræ black, latter with whitish shimmer.

Abdomen yellowish grey, its true colour seen best at a low angle in front, transversely wrinkled, but with blackish Ann. & Mag. N. Hist. Ser. 10. Vol. iv. 2

reflections seen from behind, with small black bristles. Hind margins of first, second, and third segments narrowly paler yellowish and bare of bristles. Genitalia consisting of a large globose basal piece also studded with black bristles similar to those of abdomen, with bright orange-red

appendages.

Legs. Coxe blackish, posterior pairs reddish apically, all, especially fore pair, with conspicuous silvery-white shimmer. Femora reddish brown, more or less blackish above, fore pair mainly blackish; tibiæ more vellowish brown; apical part of outer sides of fore and hind pairs, also hinder side of middle pair, with brilliant silvery-white shimmer. Pulvilli orange, claws black. Pubescence of legs uniform, black, short bristly.

Wings blackish brown on anterior half; hinder part, i. e., first basal, discal, and outer margin of first posterior cells, with all the wing behind them, yellowish grey.

Halteres reddish orange.

Length 10 mm.

One 3, Uganda, Entebbe, 29. v. 1912 (C. C. Gowdey). The species in section GGG of my table of African species (Ann. & Mag. Nat. Hist. (9) xv. p. 97, 1925).

Stylogaster nitens, sp. n.

3.-Head. Vertex and from shining dark brownish black; antennæ brownish orange, third joint blackish on apical half, style dull orange. Face shining yellowish white with silvery sheen seen from above, proboscis black, yellowish at base. Occiput almost flat, just appreciably concave, blackish, about lower half yellowish.

Thorax shining blackish, dorsum with a little very short grevish pubescence; humeri and pleuræ yellowish, mesopleura more or less blackish. Scutellum and metanotum shining black, former with pair of long fine well-separated

apical bristles.

Abdomen shining blackish, reddish orange on basal half of second, third, and fourth segments; a little greyish pubescence; genitalia moderately large, shining dark brown, with a little black pubescence.

Legs. Anterior pairs uniformly pale yellowish; hind pair

brownish.

Wings quite clear; second vein ending well before tip of discal cell; submarginal cell much broader than in S. leonum, Westw. First posterior cell rather elongate, apical section of fourth vein forming a gentle curve.

Halteres yellowish; knobs blackish.

Length 4 mm.

Ashanti, Obuasi, 26. viii. 1907 (Dr. W. M. Graham),

"caught on umbelliferous flower."

Two of of in British Museum. In the co-type the reddish orange in the abdomen is less extensive and practically confined to the third and fourth segments.

Muscidæ Calyptratæ.

Graphomyia leucomelas, Wied.

Wiedemann described his species from the ? only, from the Cape, noting it as almost identical with the common G. maculata, Scop., of Europe, and mentioning therefore

only two or three minor differences.

The present δ , however, proves that G. leucomelas is a very distinct species. The markings are of the same pattern as in G. maculata, Scop., female, but differ as described below. The & of G. maculata, Scop., is quite different, the two median thoracic black stripes being united, the abdomen brownish yellow with quite different markings, and the wings

generally brownish-tinged.

3.-Head. Eyes with dense fine brownish pubescence, separated on vertex by about one-seventh the width of the head; frons with parallel sides for some little distance before the eyes diverge; ocellar tubercle on vertex dark grey with black hairs, ocelli pale brown. Side-margins of frons and face rather broadly shimmering white, quite devoid of bristles or obvious pubescence; middle part of frons blackish, with a row each side of about ten long black converging bristles. Antennal first and second joints black, third dark grey. Face whitish grey; oral bristle strong, a moderately long one immediately above and below it, each followed by a row of smaller ones decreasing gradually in size, extending up the prominent edge of the epistome about halfway to base of antennæ, the lower row extending along lower margin of epistome for about same distance. Mouthopening, proboscis, and palpi blackish; occiput black, margin rather narrowly ash-grey, with a fringe of strong, moderately long bristles.

Thorax ash-grey. Four rather narrow, equidistant, dorsal black stripes; inner pair reaching from anterior margin to halfway between suture and scutellum; outer pair a little broader than inner pair, interrupted at suture and ending further back than inner pair. An elongate spot in middle of hind margin of dorsum, extending forwards, narrowing in

width, between the inner pair of stripes, nearly reaching suture. Scutelium ash-grey; a semicircular black spot at base, an elongate one on each lateral edge at base, the colour continued a little over hind corner of dorsum of thorax; two small black spots on hind edge of scutellum, in which are set the apical pair of bristles. Pleuræ and metanotum

ash-grev.

Six dorso-central bristles (2:4)*, two humeral, one posthumeral, two notopleural; two supra-alar, three post-alar, and two intra-alar bristles. A row of about ten bristles on front margin of mesopleura and a patch of fine hairs on its upper part, which also spreads more sparsely over rest of mesopleura; two strong propleural bristles, two sternopleural (0:2), lower ones much weaker than upper; under side of sternopleura with numerous long strong bristles. All or nearly all the bristles set in small black dots.

Scutellum with two marginal bristles each side (both placed less than halfway between base and tip), one pair apical, and a smaller subapical pair. Both thorax and scutellum on the dorsum with a considerable amount of

bristly black hair.

Abdomen ash-grey, a little yellowish tinge towards sides posteriorly; first segment very small, black, negligible; second with a curved black spot from each anterior corner, ending on hind margin a little before median line; third and fourth with a transverse row of fine black spots on each as follows. Middle one elongate, placed perpendicularly on anterior margin and reaching beyond middle of segment. The two intermediate spots the largest, triangular, placed on hind margin and nearly extended to front margin. The two outer spots rounded, on hind margins towards sides. Intermediate spots on fourth segment rather smaller than similar spots on third. Fifth segment with two small elongate spots placed perpendicularly a little before hind margin; also a minute elongate spot a little behind front margin. Venter yellowish grey; a small black dot in middle of side-margins of second, third, and fourth segments, fifth segment more ash-grey; covered with fine black bristly hair.

Legs. Femora blackish brown, posterior pairs obscurely brownish yellow apically; tibiæ obscurely brownish yellow. Front femora with bristly hair on upper and outer side and a complete row from base to tip on under side, of long strong spiny bristles, subequal and equidistant; front side

without bristles, middle femora with bristly hair on upper, front, and hinder sides and a row of bristles on under side less strong than those of front femora; hind femora with moderately strong bristles on outer and under side, fewer bristles on upper and hardly any on inner side. Two apical bristles on upper side of posterior femora. Fore tibiæ with two definite rows of very short bristles on front side; hinder half with closer, irregularly set bristles; all bristles stronger on apical part of tibiæ; middle tibiæ with two rows of short bristles on outer and one on hinder side; front and inner sides with irregularly and more densely set bristles, all stronger apically; two spiny bristles on middle third of hinder side, four apical bristles. Hind tibiæ with two rows of bristles on hinder side, rest of surface with bristles irregularly and more closely set; four apical bristles (hind one really subapical); a spiny bristle on middle of hinder side and one at middle of outer side. Tarsi normal.

Wings quite clear; venation normal, squamæ whitish

grey.

Halteres vellowish.

Length 7 mm.

One &, Natal, Weenen, xii. 1923 (H. P. Thomasset).

Graphomyia parvinotata, sp. n.

3 ♀ .—Head. Eyes in & almost punctiformly contiguous, divided only by the extremely narrow whitish orbits. Pubescence of eyes dense, bright brown. Vertical triangle small, black, with black pubescence and a pair of strong ocellar bristles; ocelli brownish. Frontal triangle blackish brown; about ten fronto-orbital bristles of various sizes with long stiff hairs intermixed. Antennæ blackish, normal; second joint with two distinct bristles. Face blackish; pale bluish-grey dusted; oral vibrissæ strong; bristles of facialia diminishing in size upwards, nearly extending to base of antennæ. Peristome with numerous short black hairs and a row of fine marginal bristles. Proboscis and palpi black, former brownish in parts. Occiput ash-grey, barely projecting behind eyes in profile just below their middle, and with a fringe of black bristles on margin.

Frons in 2 a little wider below than above, at former point about one-third width of head. An inner vertical bristle divergent, outer one convergent, post-vertical divergent *. Frontal stripe with negligible hairs; orbits outside

^{*} There are 2:4 bristles in one row and 2:5 in the other, the latter is an individual aberration.

The inner vertical bristles appear to be convergent, and the outer ones divergent, but the specimen is somewhat damaged.]

of fronto-orbital bristles closely beset with short stiff hairs. No external orbital bristles. Anterior part of epistome bare.

Thorax black: dorsum with three bluish-grey stripes from anterior margin to well behind suture, thence they take the form of two much broader stripes, reaching hind margin of dorsum. Side-margins of dorsum similarly coloured. Scutellum black, with traces of bluish-grey shimmer on margin. Pleuræ mainly bluish-grey dusted. Two humeral, one post-humeral, two notopleural, two presutural, four postsutural outer dorsocentral, two supra-alar, two postalar, and two intra-alar bristles. Hind pair only of inner dorsocentral (acrostichal) bristles as strong as the uniformly sized outer ones. Scutellum with one apical and three marginal or pre-marginal bristles. A close row of strong bristles on mesopleura; no anterior, two posterior sternopleurals; hypopleural bristles fine.

Abdomen black, with numerous small bluish-grey dustspots placed as follows: a triangular one in middle of hind margin of first segment, sides of this segment and ventral part largely bluish grey. A triangular spot each side of median line, at base of second, third, and fourth segments; a discal roundish spot towards each side of these segments; a larger irregular one on side-margin extending more or less over venter on second, third, and fourth segments; hind margin of fourth segment also bluish grey. Venter with a whitish spot in the middle of each sternite. Pubescence of

abdomen dark brown, dense, uniform.

Legs dark brown; coxe greyish-white dusted, with long bristly hair; pubescence and bristles of legs black. Fore femora with a distinct row of well-defined, fine, long bristles on upper, outer, and under sides, with fine stiff hairs intermixed on these three surfaces; middle femora with uniformly soft pubescence, very sparse on upper side, especially on apical half; two strong bristles on this side towards tip; hind femora with a row of about ten long fine bristles on under side and a row of less strong ones on outer side; upper and inner sides nearly bare. Fore tibiæ with uniformly short bristly hair, middle pair with five bristles on hinder side; hind pair with a front and hind one on outer side just beyond middle. All tibiæ with apical bristles; pulvilli orange-vellow, claws black.

Wings nearly clear or with just a perceptible brownish tinge. A very conspicuous whitish or vellowish-white dustspot in front of and contiguous with base of costa. Alar squamæ blackish, with an equally conspicuous whitish spot at base; margin narrowly yellowish, with concolorous fringe. Squamæ a little paler, with narrow, conspicuous, yellowishwhite margin and similarly coloured short fringe. Surfaces of both pairs of squamæ with microscopic black hairs.

Halteres rather small, dark brown.

Length 7-8 mm.

Described from 2 & & and 2 ? ? in excellent condition. Kenya Colony, Masai Reserve, 11. v. 1913, type &; 16. v. 1913, co-type &; five to seven miles into Kenya Forest, near Luchi River, 9-10. ii. 1911, type ?; east side of edge of forest of the Aberdare Mts., 7300 ft. 24. ii., 1911, co-type 2 (T. J. Anderson).

A pretty species, which should be easily recognizable.

Trypetidæ.

Adapsilia melancholica, sp. n.

Q .-Head. Ground-colour pale yellowish, i. e., occipital margin, vertex rather narrowly, and greater part of face; frons brownish, indistinctly blackish above antennæ. Foveæ shining black, intermediate ridge pale yellow. Antennal first and second joints blackish brown, third dull reddish brown. Proboscis and mouth-opening blackish; a small black stripe from lower corner of each eye on each side of face. Occiput yellowish, centre indistinctly blackish.

Thorax blackish brown; humeri, side-margins broadly as far as suture, also scutellum brownish yellow, latter blackish basally. Pleuræ blackish; brownish yellow below humeri, above front coxæ, on upper and hinder side of mesopleuræ, around wing-bases, and on metapleuræ; metanotum black, a

little shining.

Abdomen dark chestnut-brown; first segment blackish, but brownish across the middle, fifth segment rather bright yellow, short but conspicuous. Genitalia blackish brown, obtusely conical; a pair of small, sharp, conical, tooth-like appendages towards the cylindrical tip. Pubescence of abdomen rather uniformly short, black.

Legs. Coxæ, temora, and front tibiæ blackish brown, posterior tibiæ and all tarsi brownish yellow; pulvilli

vellowish, claws black.

Wings brownish grey, darker and more yellowish brown on anterior half, down to third vein, latter definitely but narrowly infuscated.

Halteres yellowish. Length about 12 mm.

One specimen, apparently a 2, N. Nigeria, around Comu, "near stream, in thick bush," 14. vi. 1912 (Dr. Scott Macfie).

Adapsilia sublatipennis, sp. n.

Q.—Head. Frons large, quadrate, pale brownish yellow with minute brown punctures, which are continued broadly down sides of face and more narrowly to under side of eyes. Antennæ reddish orange, basal joint more yellowish, third joint (measured in side-view along its middle line) more than double as long as its greatest width. Face yellowish, ridge below foveæ low but distinct; foveæ a little blackish on lower ends, the black colour continued in a fine curved line each side at a short distance above mouth-opening. Proboscis black, with rather dense fine pubescence; palpi bright yellow with numerous short bristles. Occiput narrowly yellowish, a transverse black space behind vertex with two fine black lines running downwards diagonally from it till they meet one another. Head practically bare, with scattered short black bristly hairs on frons, vertex, and occiput.

Thorax pale yellowish brown, with short bristly black hairs; hind margin narrowly black; humeri yellow; pleuræ concolorous, a little yellowish above wing-base; scutellum lemon-yellow, bare except for the four long black bristles (one on each side-margin set a little distant from the edge, and a pair of well-separated apical ones); metanotum concolorous with thorax; traces of a narrow median blackish-brown line. Pubescence of thorax short, uniform, black.

Abdomen with first and second segments united; basal half of the double segment obscurely olive-yellow, with two small well-separated lemon-yellow dot-like spots at extreme base; apical half of double segments more ferruginous-brown, with a blackish transverse line and a narrow yellow line in front of it, placed across the middle of the double segment*. Third segment only one-quarter as long as second (i. e., apical half of double segment), fourth, fifth, and sixth very short, yellow, subequal, obscurely reddish brown with narrow ill-defined yellowish hind margins. Venter blackish. Genitalia large, conical, ferruginous-brown, a little darker at base, about as long as the long double segment, with only a little short fine pubescence.

Legs uniformly ferruginous-brown; coxæ rather obscurely greyish; a very small pale yellow space at tip of under side of all femora. Pubescence of legs black.

Wings of normal width; pale grey; a dark grey spot towards wing-tip with well-defined inner sides, reaching downwards to a little below third vein and extending inwards as far as appendix of second vein. Stigma indistinctly darker than disc of wing; base of third vein shortly blackish infuscated, costal cell pale yellowish.

Halteres all yellow. Length about 9 mm.

One ?, S. Rhodesia, Hope Fountain, 1. xii. 1921 (N. Jones) (Rhodesia Museum).

Near A. latipennis, Walk., but the wings not exceptionally broad.

Sepsidæ.

Sepsis posterolineata, sp. n.

9.—Head. Occiput, vertex, and from orange-brown, latter with bluish reflections; antennæ orange; face light brownish yellow with whitish reflections seen from above; proboscis brownish yellow. Two fairly strong oral bristles, remainder merely stiff hairs.

Thorax light brownish yellow: a moderately narrow whitish-yellow side-stripe, with very narrow brown edges running from humeri to wing-bases. A pair of wide blackish-brown stripes from sides of base of scutellum extending to lower part of mesonotum. Two dorsocentral bristles (hindmost), two notopleural, one post-humeral, placed well back on side-margin of dorsum, one præ-alar, one supra-alar, one mesopleural, one scutellar (apical) bristles.

Abdomen brownish yellow in ground-colour (apparently), but considerably blackish; first segment all black, second and third on apical half and most of the dorsum on the remainder blackish, but yellowish at sides. Venter brownish yellow, hind margins of segments narrowly blackish. Second abdominal segment with a perpendicular row of three bristles on sides and one or two more behind them; third, fourth, and fifth segments with (probably) four bristles in a row a little before hind margin. Abdominal pubescence short, bristly.

Legs all pale brownish yellow; front legs pale yellow; posterior femora black on upper side towards tips; fore tarsi all black, tips of posterior tarsi blackish. Hind femora with two or three medium-sized bristles on upper side near tip; posterior tibiæ with three or four apical bristles; hind tibiæ with a subapical one on hind side and one in middle of outer side.

Wings uniformly pale grey. Tips brownish, infuscated narrowly but quite distinctly, yet without well-defined

^{*} Probably, morphologically the yellow band represents the hind margin of the first segment and the black one the base of the second,

edges, from just before tip of second vein to tip of fourth vein.

Halteres pale yellow.

Length 5 mm.

One ?, Uganda, Kampala, 2. ix. 1918 (C. C. Gowdey). The chætotaxy given is probably incomplete, as the unique type is not quite perfect.

Sepsis zanzibarensis, sp. n.

3.—Head bright brownish orange; ocelli yellowish, each set on a small black dot; a brownish streak on occiput from upper corner of each eye towards centre. Bristles normal; oral bristles moderately long preceded by one or two and

followed by several shorter bristly hairs.

Thorax bright brownish orange; scutellum more yellowish. Three dorsocentrals, all behind suture, front one weak; in front of these a row of minute bristles extends to the anterior margin; two rows of minute acrostichals between the dorsocentral rows for nearly whole length of dorsum. One humeral bristle, two notopleural, one supra-alar, one post-alar bristle, all strong. A row of minute bristles on outer side of dorsocentral row in neighbourhood of wingbases; with a shorter additional row still nearer to margin of dorsum. One strong mesopleural bristle in upper hind corner; apical scutellars strong, a very weak one in middle of side-margin. Pleuræ with some greyish-white reflections.

Abdomen bright brownish orange; second and third segments brownish posteriorly, fourth nearly black, with anterior corners rather broadly bright red passing over sides of segment and spreading broadly over venter; fifth segment with blackish sides, disc nearly filled with a shining yellowish dust-spot which extends over hind part of fourth segment. Second segment with a perpendicular row of three bristles on each side with two or three smaller ones behind them; third, fourth, and fifth segments each with a row of four bristles placed on the last quarter of each segment. Genitalia brownish yellow; a pair of obtuse conical claspers (with a strong bristle on the outer side of each at base and a finer bristle below them) broad basally and with very pointed tips. Venter pale yellow.

Legs bright reddish orange, tarsi obscurely yellowish, last two joints black. Fore femora considerably incrassate, with sparse fine bristles on upper side and three or four longer ones on apical half; on under side a conical peg just beyond middle and three spines just before it (fore tibiæ too tightly closed on femora to observe vestiture). Middle femora with a bristle in middle of front side and a row of about five towards tip; middle tibiæ with three in middle half of hinder side (i. e., one on front, one on inner, one on outer side); also three or four apical bristles. Hind femora with three close together on outer side, well before tip; about three weak ones on under side on middle half; hind tibiæ with one on front, one on hinder, and two on outer side, all placed on middle half, also a subapical one on outer side and two apical ones on front side.

Wings pale grey, nearly clear; a perceptible narrow blackish suffusion over tip of second vein; the wing-tip appearing whitish when viewed from base at a low angle.

Halteres orange, small.

Length 4 mm. One 3, Zanzibar, i.-ii. 1925 (H. J. Snell).

Sepsis natalensis, sp. n.

J.—Very like a small-sized S. zanzibarensis, but the armature of the front femora quite different. The middle pair of bristles on the third, fourth, and fifth abdominal segments absent; a large oval black spot covering about apical half of third segment, and nearly all fourth segment. Genitalia with a strong bristle on outer side of each clasper near base. Two subequal oral bristles; bristly hairs below them as in S. zanzibarensis.

Legs bright brownish orange. Fore femora distinctly incrassate in middle on under side, with four spines before the middle, the distal one the largest; a small conical peg just beyond them bearing three smaller tooth-like spines; also two definite spines immediately before the peg; a second, smaller and more cylindrical, peg just beyond first one. Middle femora with a row of stiff bristly hairs, a strong bristle in middle of them, on under side; middle tibia with three bristles in middle of hinder side and one at middle of inner side. Hind femora with one on outer side towards tip; hind tibiæ with two beyond middle on outer side.

Length about $2\frac{1}{4}$ mm.
In all else as in S. zanzibarensis.
One S, Natal, Weenen, iii. 1925 (H. P. Thomasset)

Sepsis unicoloripes, sp. n.

े दे .—Head reddish orange, a little blackish about mouthopening, with bristly hairs on oral margin; two strong oral

bristles, a rather smaller one above and below, and a row of finer bristles or bristly hairs. Head-bristles normal.

Thorax all reddish orange including metanotum. One humeral bristle, one supra-alar, one post-alar, two dorsocentral (hindermost), two notopleural, one mesopleural, one scutellar. A little whitish-grey dust reflection above middle coxæ.

Abdomen orange-brown, irregularly blackish in parts: third and fourth segments with four bristles, fifth with

middle pair absent.

Legs all orange to tips of tarsi. Fore femora with a small definite swelling at middle of under side preceded by a single strong spine, the swelling bearing four short spines and followed by a narrow cylindrical peg. Some stiff hairs at base of under side. Fore tibiæ a little widened before middle on hinder side, after which it is narrowed, slightly widening again towards tip, the broadened basal part with a row of stiff short bristly hairs. Middle femora with two bristles at middle of front side; middle tibiæ with one at about middle of inner side and one just above and below it on hinder side, with three or four apical bristles. Hind femora with two on outer side towards tip; hind tibiæ with one on outer and two diverging ones on hinder side, all a little below the middle; a weak subapical bristle on hinder side, and two strong proximal ones on front side of metatarsus.

Wings very pale grey. Halteres pale orange.

Length 3 mm.

Two & &, one Q, Gold Coast, Aburi, 1912-13 (W. H. Patterson).

Sepsis rufa, Macq.

Several specimens of both sexes from Natal, Weenen, xii. 1923; i.-ii.-x.-xii. 1924; iii. 1925; i. 1924 (Thorn country) (Thomasset). There is little doubt of the identity of the species, which extends as far north as Egypt and as far east as India. The oral bristles are conspicuous and spinous, four stronger ones on each side and a row below them of finer ones or bristly hairs. The fore femora have, in the &, a row of five subequal and equidistant strong spiny bristles (the first at middle of femur), also a single bristle a little beyond end of the row; another one beyond base. All these bristles form a row on inner side. A shorter outer row of smaller ones rather beyond middle of limb, with one or two isolated at each end.

Sepsis definita, sp. n.

3 2. Head black, barely shining; antennæ and face, mouth-region, and proboscis all more or less brownish yellow, but variable; lower half of occiput yellowish. Bristles normal; about six, sometimes more, on oral margin, including two or three strong ones on each side.

Thorax black, barely shining; side-margin of thorax sometimes narrowly, sometimes broadly, pleuræ practically entirely brownish yellow. Scutellum generally black, sometimes more or less brownish yellow; metanotum brownish yellow with a median black stripe. A more or less complete grey dust-stripe on upper part of sternopleura sometimes reduced to a triangular spot above middle coxæ. No dorsocentral, one humeral, one supra-alar, one post-alar, two notopleural, and one scutellar bristle.

Abdomen very shining black; second segment sometimes broadly yellowish at base, or on anterior corners only, third also sometimes on anterior corners. Third and fourth segments with four bristles, fifth with outer pair only. Venter

black, broadly yellowish apically.

Legs yellowish, posterior femora sometimes mainly blackish above, the colour more or less continued over sides; hind tibiæ black or blackish, middle tibiæ also often so on basal half. Fore temora in male with a peg about the middle with four short spines, preceded by a single spine; fore tibiæ a little swollen beyond base, bearing short spines there. Middle femora with a row of bristly hairs below and a spine at middle of front side; middle tibiæ with a bristle below middle on inner side, one at the middle, and one in the distal quarter on hinder side. Hind femora with one at threequarters of its length on upper side; hind tibiæ with one on front and one on outer side both about the middle. Bristles in a much reduced, possibly practically absent. (Legs in bad condition.)

Wings clear; about basal half of costal cell black.

Halteres conspicuous, bright yellow.

Length about 3 mm. Described from several of each sex, many in inferior condition, from Natal, Weenen, iii.-iv. 1924, jii 1924, iv. 1924; 2840 ft., thorn country, i. 1924; ii.-iii. 1925 (H. P. Thomasset). The species should be near S. delectabilis, Adams, from Rhodesia, and is easily recognizable.

Sepsis quadratipunctata, sp. n.

8 9. Head mainly brownish yellow; vertex and frons

from dark brown to black; occiput blackish; oral margin with three strong bristles, of which middle one is the longest, also a row of seven or eight rather fine well-separated bristles. Head-bristles normal.

Thorax moderately shining black; sternopleura with whitish grey-dusted band complete and conspicuous. One humeral bristle (almost post-humeral), two dorsocentral, one supra-alar, two notopleural, one mesopleural, and one scutellar.

Abdomen shining black with violet reflections, especially

basally, no signs of pale spots.

Legs black: front coxæ considerably or wholly, posterior coxe more or less brownish vellow; fore tibiæ and all tarsi more obscurely so, the pale colour varying a little in extent. Fore femora with a slight swelling on under side at middle with five short spines, the middle one much the longest; also a single strong spine both before and beyond the swelling. Middle tibiæ with a bristle below middle on inner side and two on hinder side, placed respectively at middle and distal end of limb. Hind tibiæ with one at middle of outer side (a little towards hinder side) *.

Wings clear; a small, generally squarish, black spot over

tip of second vein, not altogether constant in shape.

Halteres pale vellow, conspicuous.

Length 2-3 mm.

Described from 4 3 3 and 4 9 9, in fair condition (except for missing bristles), from Natal, Weenen, iii.-iv.-v. 1924

(H. P. Thomasset).

It should be near S. propinguus, Adams, from Rhodesia, but the latter has two bristles on all the tibiæ, which are almost certainly not present in the present species. S. propinguus, Adams, also has "the large vein at base of wing swollen, bordered with brown," which is not the case here.

Sepsis longisetosa, sp. n.

3 9. Head reddish yellow to brownish yellow; vertex, from, mouth-opening, proboscis, and occiput blackish, to a varying degree in individuals. Bristles normal. Oral margin with three strong bristles and a few smaller ones.

Thorax. Dorsum dark greyish black, only a little shining; sternopleuræ with complete whitish-grey dust-stripe. Two dorsocentral bristles, one humeral, one præ-alar, one long supra-alar, one small post-alar, two notopleural, one scutellar.

Abdomen shining black with purplish, sometimes violet, reflections. Outer pair of bristles present on third, fourth, and fifth segments, and an inner pair as well on fourth

segment. (Bristles mainly missing.)

Legs. Front pair all brownish yellow except tips of tarsi, blackish; posterior coxæ brownish yellow, posterior femora for a varying distance proximally similarly coloured; remainder of femora shining black. Posterior tibiæ generally more or less brownish yellow apically. Fore femora with a distinct bump below in central region bearing three, perhaps four, rather short spines; a strong spine on a small cylindrical peg before the bump, and a row of seven strong rather long subequal equidistant bristles between bump and tip of limb. (Bristles of legs mainly missing.)

Wings clear, a distinct roundish black spot at tip of second

Halteres pale yellow.

Length $2-2\frac{1}{2}$ mm. Described from 1 & and 4 2, Natal, Weenen, xii. 1923i.1924, type &, iii.-iv. 1924, type ?; iii. 1925; 2840 ft.,

i. 1924 (H. P. Thomasset).

This species is near S. petulantis, Adams, from Rhodesia, but appears to differ essentially in having three strong oral bristles, which in Adams' species are replaced by a fringe of short hairs. In that species also the legs are more extensively yellow and there is a second wing-spot at base of first vein. The middle pair of submarginal bristles on the fourth abdominal segment are not mentioned by Adams, but they are present in S. longisetosa.

Sepsis setosipes, sp. n.

3. Head. Vertex and frons moderately pale brownish, a broadly blackish triangular space on ocellar region, and a very narrow black line contiguous with eye-margins on upper part of frons. Antennæ brownish yellow, upper side much darker. Face, proboscis, and mouth-opening yellowish; lower part of head blackish.

Thorax greyish black; humeri mainly reddish yellow; sternopleuræ blackish with a blue-grey dust-stripe, remainder of pleuræ reddish yellow. One humeral bristle, two notopleural, one pre-alar, one supra-alar, one mesopleural, one scutellar. (Dorsocentral broken off.)

Abdomen shining black; sides of second and third segments, tip of abdomen and genitalia, broadly yellowish;

^{*} Only the bristles observed are recorded. There are obviously some broken off.

third and fourth segments with four bristles, fifth segment

with only one outer pair present (damaged).

Legs brownish yellow; a short brownish streak on apical half of upper side of hind femora. Hind tibia brownish on basal half. Fore femora with two very weak bristles beyond middle of upper side; under side with a swelling at middle bearing four divergent spines, with three spines before them and four others beyond the swelling; also a strong isolated bristle towards base. Fore tibiæ (apparently) with short bristly hairs on basal half *. Middle femora with four bristles on apical half of under side and one on upper side near tip; middle tibiæ with one at middle on inner side and two on hind side (one above and one below middle); three or four apical bristles. Hind femora with two rather weak ones towards tip on upper side; hind tibiæ with two diverging ones on outer side at about middle, also one on front side, a little below the middle.

Wings clear; a roundish black spot at tip of second vein.

Halteres pale yellow.

Length $2\frac{1}{2}$ mm.

One &, Natal, Weenen, iii.-iv. 1924 (H. P. Thomasset).

Micropezidæ.

Telostylus nigripes, sp. n.

9. Head black; tip of frons reddish orange, the colour continued upwards in narrowed form for a short and varying distance; side-margins of frons and sometimes the inner margins of the eyes themselves narrowly but conspicuously yellowish. Antennæ black. Epistome blackish with whitish dust, mouth-opening, lower part of head, and occiput brownish vellow; proboscis and the long cylindrical slender palpi brownish yellow, nearly bare. A large patch of whitish dust each side on lower part of occiput.

Thorax black; a broad whitish-grey dust-stripe, about one-third width of thorax, running from anterior margin of dorsum to tip of scutellum. Upper margins of pleuræ broadly yellowish, more or less white dusted. Metanotum

shining black, bare.

Abdomen. Ground-colour blackish, central portion mainly reddish or brownish yellow, sometimes with a row of small black indistinct dorsal spots, sometimes with a fairly definite narrow median dark stripe. Venter reddish yellow, sidemargins and tip more or less blackish. The rather long ovipositor (about 1 mm.) curled under the venter.

Legs black, outer side of fore coxæ yellowish; front side of fore coxæ with a row of five or six strong spines, fore femora on under side bearing about twenty uniform small spines; hind femora with a few weak ones below at tip; all tibiæ with two apical spurs.

Wings pale brownish yellow, narrowly blackish from costa

to second vein.

Halteres yellowish.

Length $6-6\frac{1}{2}$ mm. Described from several specimens, Nigeria, Ibadan, 20. vii. 1923, type 2; Sierra Leone, Kennema, 16. xii. 1924 (E. Hargreaves); Gold Coast, Aburi, 1921 (W. H. Patterson);

Southern Nigeria, Agege, 14. viii. 1913 (Dr. W. A. Lamborne).

The specimens are not in the best condition and perhaps some of the bristles may be missing, but they appear to be as follows: one vertical, one post-vertical, two upper frontoorbital, one supra-alar, one post-alar, two dorsocentral, the two hindmost, of which the front one is small, two notopleural, one strong apical scutellar, and one weak marginal

Telostylus uniannulatus, sp. n.

2. Head. Frons black, a narrow median reddish stripe, widening considerably above antennæ; sides of frons rather broadly whitish yellow. Face and lower part of head yellowish, broadly shimmering whitish at sides; mouthopening blackish, proboscis brownish yellow, palpi blackish at tips. Antennæ all black. One vertical, one post-vertical, one very small, and three long fronto-orbital bristles near anterior margin of frons. Occiput wholly yellowish, with whitish reflections, but blackish behind vertex.

Thorax blackish brown, more than middle third yellowish grey, with more or less distinct (always so on anterior margin at least) very dark median stripes superimposed thereon. Side-margins of dorsum and upper part of pleuræ pale yellowish from humeri to wing-bases; rest of pleuræ mainly blackish, grey-dusted towards hind and lower parts and a little yellowish narrowly above front coxæ. Four dorsocentral bristles (1:3) all moderately strong, two notopleural, one supra-alar, one post-alar. Scutellum yellowish, one marginal, one apical bristle; two small brown spots on its extreme hinder edge between the apical bristles; lower part of scutellum and the metanotum shining black. Hinder part of metapleuræ with a large round yellow spot.

Abdomen yellowish brown; side-margins and median

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^{*} Too closely folded on femur to observe satisfactorily.

stripe rather narrowly black. Venter all yellowish, genitalia

shining orange-brown.

Legs black or black-brown; fore coxæ all yellowish; a distinct narrow yellowish ring on hind femora just beyond two-thirds of its length; fore coxæ with only a group of spines near tip on front side; posterior coxæ very spiny. The legs appear to be variable in coloration.

Wings yellowish grey, apical part of second vein a little

infuscated.

Halteres yellowish.

Length 5 mm.

Described from 3 9 9 from Zanzibar (Dr. W. M. Aders).

Telostylus uniannulatus, sp. n., var. fascipes, var. nov.

Two \mathfrak{P} which do not appear separable specifically from the typical form show the following variation in the legs. One \mathfrak{P} , Uganda, Entebbe, 20. ix. 1912, has the fore and hind femora brownish yellow, with a black streak on inner and outer sides, interrupted in the middle, the hind femora broadly blackish at tip. In another \mathfrak{P} (type), from Uganda, Kampala, 17. ix. 1915 (Gowdey), the fore femora are yellowish brown with uninterrupted weak blackish streak on inner and outer sides; the hind femora are similar but with the streak on outer side only and uninterrupted, the hind femora tips are broadly black but the colour not clearly outlined.

Sciomyzidæ.

Sepedon senegalensis, Macq., var. nov. unicolor.

This specimen appears to be a variety of S. senegalensis, Macq., and differs only in the entirely black abdomen, which in Macquart's species has the junctions of the segments whitish. The description as given by Maquart is very

inadequate.

Head shining black; a small indistinct brownish spot with a whitish shimmer at certain angles of vision, also a velvet-black spot just above, both contiguous to eye-margins below middle of frons. Antennal first and second joints brownish yellow, second clothed with the usual black bristles, third black, normally shaped, upper side at extreme base yellowish, with yellowish arista changing apically to quite white. Face and part of head mainly shining black, with a little greyish dust; eye-margins up to level of antennæ narrowly shimmering white seen from above; cheeks all brownish yellow,

very shining. Occiput black, lower corners shimmering white when seen from certain angles. Proboscis and palpi brownish yellow.

Thorax. Dorsum dull black; pleuræ rather dark ash-grey; scutellum shining black (destroyed by pin); metanotum

grey-dusted.

Abdomen only a little shining, pubescence microscopic,

black.

Legs. Front coxe and all femora mainly pale yellow; posterior coxe black, with whitish dust; femora browner towards tips; hind femora with a distinct broad reddish band on apical half with ill-defined edges; tips of hind femora themselves narrowly black with a short preapical, yellowish, ill-defined ring. All tibiæ and tarsi black to tips, middle tibiæ wholly, a ring beyond middle of hind tibiæ, half of hind tarsi above, indistinctly yellowish brown; pulvilli yellowish, claws black. Leg-bristles mostly missing; two on middle of front side of middle femora, several on apical half of under side of hind femora.

Wings moderately dark grey, darker brown apically as far inwards as level of posterior cross-vein. Anterior and

posterior cross-veins barely perceptibly suffused.

Halteres blackish.

Length 6 mm.

Described from a single specimen, Sierra Leone, Mabang, 20. ix. 1924 (E. Hargreaves).

II.—The Mammals of Señor Budin's Patagonian Expedition, 1927-28. By OLDFIELD THOMAS.

SENOR BUDIN'S work in Argentina having still left a very important region—the far south—unworked, it was arranged for him to make an expedition there in the southern summer of 1927–28, and the present paper gives an account of what he obtained.

The expedition was made possible by the generosity of private friends, among whom may be mentioned Colonel Stephenson Clarke and Mrs. Ruxton*, with contributions from the Percy Sladen Trustees, the Trustees of the Godman Memorial Fund, and the British Museum.

^{*} Mrs. Ruxton's contribution was given in memory of her son, Commander A. E. Ruxton, who did so much good work on the small mammals in the Museum collection.