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I. MISSION G. F. DE WITTE  
en collaboration avec  
W. ADAM, A. JANSSENS, L. VAN MEEL  
et R. VERHEYEN (1946-1949).  
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I. ZENDING G. F. DE WITTE  
met medewerking van  
W. ADAM, A. JANSSENS, L. VAN MEEL  
en R. VERHEYEN (1946-1949).  
Aflevering 50 (7)

# BOMBYLIIDAE <sup>(1)</sup>

## (DIPTERA BRACHYCERA)

BY

Albert J. HESSE (South African Museum, Cape Town)

In this small collection of *Bombyliidae* submitted by the « Institut des Parcs Nationaux du Congo Belge », four subfamilies, six genera, and nine species are represented. Among these three species are definitely new to science and two others are represented by single or damaged specimens which cannot at present be described and which may also prove to be new species should more specimens eventually become available.

The types of the new species described are in the « Institut des Parcs Nationaux du Congo Belge ».

The material represented are as follows :

### BOMBYLIINAE.

#### 1. — *Bombylius mollis* BEZZI.

Represented by a single ♀-specimen which agrees with ♀♀ from Southern Africa and which sex, owing to the relatively narrow interocular space on the vertex for the genus *Bombylius*, BEZZI wrongly described as the ♂ of a new species *disjunctus*, and which I showed in 1938 to be only the ♀ of *mollis* BEZZI. Kankunda, affl. g. Lupiala et sous-affl. dr. Lufira, 1.300 m, 16-19.XI.1947.

(1) Unless otherwise mentioned, all specimens recorded in this paper were collected by Mission G. F. DE WITTE.

All the localities between [ ] are without the Park's boundaries.

2. — **Gonarthrus** sp. ?

A single indeterminable ♀-specimen which is much denuded and badly damaged, and with its antennae and legs missing. Mukana, marais près Lusinga, 1.810 m, 19.IV.1949.

## SYSTROPINAE.

3. — **Systropus ichneumoniformis** n. sp.

This smallish species is referable to the *Coptodictus*- and *Symballa*-groups of ENDERLEIN in which there are three submarginal cells in the wings and which in South Africa are represented by the species *leptogaster* LOEW and *sanguineus* BEZZI and in Tropical West Africa by *vespiformis* ENDERLEIN and *holaspis* SPEISER. It is characterized as follows :

Body mainly black; a circular spot surrounding bases of antennae, and to a certain extent also slightly more than upper half of buccal rim on inside, pallid; buccal cavity and palps more yellowish brownish to brown; humeral tubercle and especially propleural part yellowish brown to reddish brown; small postalar calli also tending to be dark reddish brown; relatively small foliate scutellar callosity on each side below ivory yellowish; greater part of abdominal segments 4 and 5 below and on sides, and to a much lesser extent sternal part of segment 3 and sometimes in ♀ also extreme base below of segment 6 yellowish brownish; ovipositor of ♀ reddish brownish; legs with the coxae, trochanters, front and middle femora and tibiae very dark blackish brown or black, with the knees of front and middle femora narrowly reddish brownish, with the elliptical callus on front femora pale yellowish brownish, with the greater part of hind femora, excepting only for the dark scaling and hairs above and dark apices, the greater part of hind tibiae under their dark hairs and scaling and up to their dark clavate apical part, extreme bases and apices of front and middle tibiae and more than half of the basal joint of all the tarsi yellowish or very pale yellowish brownish, and with the rest of tarsal joints and the claws dark or black. Integument of body somewhat shining; thorax and scutellum above densely and finely rugosely punctured, the former discally slightly depressed and with a slight, central, longitudinal groove posteriorly; pleurae finely and more or less transversely rugulose, the rugae on posterior part of mesopleuron and especially on posterior half of hypopleuron behind the ridge coarse and wavy; metasternum with relatively conspicuous transverse rugae; abdomen with fine acicular puncturation, becoming more distinct and rugulose basally and much more so on basal segment. Vestiture with very fine silvery pubescence on each

side of buccal cavity, somewhat dense and fine gleaming white silvery hairs on mesopleuron, coxae, front and middle legs, especially outer side of the tibiae; hairs across anterior margin of thorax above, those on propleurae, pteropleuron and longer and denser ones on metasternal part while, those on latter gleaming more pale sericeous yellowish in certain lights; fine hairs on antennae dark; very fine ones on thorax above also dark hairs on sides of basal segment of abdomen mainly black, becoming white on sides below posteriorly; fine hairs and scaling on rest of abdomen mainly black, those across hind margins of tergites 2-5 and in ♂ also on almost entire tergite 8 gleaming more sericeous whitish or yellowish; few stiffish bristly hairs on ovipositor of ♀ gleaming golden; fine scaling on hind legs mainly dark or black, but pale on femora below; fine hairs and scaling on tarsi mainly black, but those on basal joint of front and middle ones mainly pale, gleaming silvery and becoming more yellowish or golden below. Wings tinged smoky brownish throughout, becoming distinctly darker towards base in first and second basal cells and in ♀ also in bases of marginal and first submarginal cells, and with costal cell in both sexes subopaquely yellowish brown; veins brownish to dark brownish, with a distinct dark callous spot at base of first submarginal cell; submarginal cells three in number of which the apical (or third) one is not narrowed apically and cross vein between it and first submarginal cell shorter or much shorter than cross vein between first and second submarginal cells; middle cross vein slightly beyond middle of discoidal cell; first posterior cell slightly narrowed apically; squamae broad, lobe-like, thin, glassy hyaline and unlike the narrow subopaque squamae of all the other known South African species of this genus; halteres brown, their knobs pale yellowish brownish, becoming paler apically, entirely whitish below and with fine dark hair-like scaling basally above. Head with the eyes above almost in direct contact in both sexes, separated only by a very narrow frontal strip, about  $1 \frac{2}{5}$  length of small ocellar tubercle in ♂ and about as long as tubercle in ♀, the inner margins of eyes at first gradually and then more rapidly diverging in ♂ than in ♀; frons at level of antennae appearing slightly broader in ♂ than in ♀; facets of eyes in anterior part above in ♂ distinctly coarser than in ♀; antennae with the first joints slender, finely black-haired, about 2,75 to 3,5 times length of slightly variable second joint, the latter slightly thickened apically, with the third joint flattened, a little or distinctly longer than first (or in ♀-specimens, where joint is still present, about 3,7 to 3,9 times length of second joint), more or less elongate-spindle-shaped, narrowed apically, broadest at about middle where its width is a little less than half length of second joint; proboscis very long and slender, longer than hind femora. Abdomen with three segments (2-4) forming the stalk or petiole; last sternite of ♀ elongate, scoop-like, very deeply and narrowly and angularly incised, with its posterior angles very sharply pointed, almost spine-like; ovipositor of ♀

conical, laterally compressed, projecting only slightly posteriorly. Legs with the callus-like area on front femora very finely and densely (brush-like) pubescent; hind femora without any spines.

Length of body : about 10-12 mm.

Length of wing : about 6,72-7,72 mm.

From *leptogaster* LOEW, with which it may be superficially confused, it may at once be distinguished by its smaller size, not entirely contiguous eyes, relatively longer and more slender proboscis, much longer third antennal joints, absence of conspicuous yellow across humeral and propleural parts, dark front coxae, presence of a distinct, thin, glassy hyaline and lobe-like squama, and deeply and narrowly incised last sternite in ♀.

From the other three known species (*sanguineus* BEZZI, *vespiformis* ENDERLEIN and *holaspis* SPEISER), with three submarginal cells in the wings, it may not only be distinguished by the presence of a distinct lobe-like hyaline squama, but by its more extensively dark thorax and darker front legs or at least the absence of conspicuous yellowish or reddish markings on these sites, and the narrowly and deeply incised, or almost bifid, last sternite in ♀.

Superficially this species has some resemblance to certain species of the Ophionine Ichneumonidae.

Four specimens : Lusinga, riv. Kamitungulu, alt. 1.760 m, 13.VI.1945, 1-8.XII.1947 and 12-17.XII.1947, 1 ♀-paratype, 1 ♀-paratype, 1 ♀-holotype and 1 ♂-allotype respectively.

## LOMATIINAE.

### 4. — *Lomatia pulchriceps* LOEW.

Two much denuded and somewhat damaged ♀-specimens before me agree in essential characters with the widely distributed and variable species *Lomatia pulchriceps* which is characterized by the conspicuous white tufts on frons anteriorly, the more darkly infuscated first basal cell and basal halves of marginal and first submarginal cells in wings, and presence of longish bristle-like spicules on basal joint of front tarsi in ♀. Mukana, marais près Lusinga, alt. 1.810 m, 22-23.IV.1949, 1 ♀; Lusinga, riv. Kamitungulu, alt. 1.760 m, 9-18.V.1949, 1 ♀.

### 5. — *Lomatia halteralis* n. sp.

Three somewhat denuded ♀-specimens belong to the series of species of *Lomatia* which I referred to section 2 in my revision of the South African forms in 1956. They constitute an undescribed species which is obviously very near certain varieties or forms of *pulchriceps* LOEW.

They are characterized as follows :

Body mainly black; buccal rim, pteropleural part below base of wings, the sutural parts on pleurae sometimes, postalar calli to a certain extent, and the narrowish hind margins of sternites obscurely reddish brownish; legs with the femora dark blackish brown to black, but the tibiae and greater part of tarsi paler, reddish brown to yellowish brown. Vestiture (as far as this is still discernible) with the hairs on frons in front, all or most of those on antennae below, those on sides of face and along genae, those in collar, on propleural part, anterior and upper parts of mesopleural tuft and much of the pale ones on sides of abdomen and also densely on sides of last tergite gleaming yellowish or sericeous yellowish; those on genae, in hinder part of mesopleural tuft, lower parts of pleurae, in metapleural tuft and tuft on each side at base of abdomen, and hairs on venter (especially dense on sides) gleaming paler sericeous yellowish, straw-coloured yellowish to even paler yellowish whitish in certain lights; hairs on ocellar tubercle, basal half of frons, densely on first antennal joints above and sometimes a few below on inner side, sparse hairs intermixed on thorax above, pre-alar bristles (or at least some of them), longish bristly hairs on sides of tergites 2-7, most of the fine hairs on abdomen above (where still to be seen in specimens), some hairs intermixed on last sternite, and the visible part of the dense genital tuft in ♀ black; spines and spicules on legs also black; scaling (where not denuded) fine and hair-like, mainly brassy yellowish or pale golden yellowish behind eyes, on body above, and densely across hind margins of tergites, especially on sides; that on body below, especially on venter, paler, more sericeous yellowish; scaling on legs mainly greyish white. Wings darkly tinged reddish brownish throughout, but anterior half comprising more or less the basal halves of marginal and first submarginal cells and especially first basal cell darker reddish brown, and costal cell distinctly more yellowish; veins reddish to reddish brownish, the cross veins at bases of second submarginal, first posterior, third posterior and fourth posterior cells and also common base of second and third veins appearing darker or faintly spot-like; base of second submarginal cell with a short appendix or with a tendency to give off one; discoidal cell rather long, distinctly much longer than first posterior cell, the latter only very slightly or scarcely narrowed apically; second posterior cell usually less than twice as broad apically as basally, its sides straight, not much contorted; halteres pale yellowish brownish, their knobs paler and more whitish apically, these knobs rather elongate for this genus, elliptical or narrowed apically (not truncate or subtruncate apically as in most species), the stalk or pedicel rather short, not very much or markedly longer than the knob, at least distinctly less than one and a half times length of knob. Head with the frons rather shiny, about, or a little less than, twice as broad as ocellar tubercle on vertex, distinctly depressed anteriorly; hind margin of eyes

rather deeply and angularly emarginate; antennae separated by a space which is distinctly much narrower than that on sides between antennae and inner margins of eyes, with the thickened first joint about twice length of second, with the third bulbularly dilated basally, more so on lower side and more rapidly narrowed on lower side to a markedly long slender or stylar part which is quite 2,75-3 times length of bulb-like base; proboscis about 1,6-2,24 mm long, distinctly projecting much beyond buccal cavity, its labellar part elongate, but still very much shorter than basal part; palps not longer than third antennal joint. Legs with at least 1 spine on anterior lower part beyond middle on middle femora; hind ones with about 3 spines in apical half below, two apically above, and a row of minute ones on inner lower part; basal joint of front tarsi in ♀ with only a few longish bristle-like spinules below apically.

Length of body : about 5,5-9 mm.

Length of wing : about 5,5-9 mm.

Superficially resembles *pulchriceps* LOEW, especially its dark-winged varieties, from which it however differs in not having a tuft of silvery white hairs on frons anteriorly, in having much fewer black hairs on antennae below, a relatively longer stylar part to third antennal joint, slightly darker, less dimidiately contrasting, infuscated wings, a relatively longer discoidal cell, a narrower and more subparallel-sided second posterior cell, longer and more elliptical halteral knobs and in not having longish bristle-like spinules intermixed along most of lower surface of basal joint of front tarsi in ♀.

Three specimens : Mukana, marais près Lusinga, alt. 1.810 m, 14.IV.1947, 1 ♀-holotype; Lusinga, riv. Kamitungulu, alt. 1.760 m, 10.IV.1947, 2 ♀-paratypes.

#### 6. — *Lomatia purpuripennis* n. sp.

A number of specimens, though very badly damaged and almost entirely denuded, still show a sufficient number of essential characters to warrant a description of the species and by which they could be recognized and distinguished from most of the known Central and East African and South African species of *Lomatia*. They obviously belong to the same section as *pulchriceps* and the preceding new species *halteralis*.

The chief, and still discernible, diagnostic characters of these specimens, as compared with the corresponding ones of *pulchriceps* and *halteralis*, are as follows :

Body similarly coloured, also mainly black; legs also with the femora very dark blackish brown or black, the tibiae and tarsi paler, more yellowish or reddish brownish. Vestiture almost entirely denuded in these specimens, but where still indicated, with the pale hairs on head and

body as in *halteralis*, the tufts on frons in front yellowish and not white as in *pulchriceps*; hairs on antennae below in ♀ as in ♀-*halteralis*, mainly or entirely yellowish, but with a dense tuft of black ones among the yellowish ones on inner lower part in ♂; genital tuft in ♀ velvety black. Wings very dark, subopaquely purplish or mauvish brownish throughout in both sexes, the anterior half however slightly darker and with more distinct reddish or pinkish mauvish reflections or tints in certain lights, with the hinder part or half of wings not so contrastingly less tinged or clearer as in *halteralis* and certain dark-winged forms of *pulchriceps*, with the costal cell however also yellowish as in these two species; veins reddish or reddish brown and with even more distinct spot-like infuscations on basal veins of second submarginal, first posterior, third posterior and fourth posterior cells than in *halteralis*; discoidal cell on the whole relatively shorter than in *halteralis* and sometimes even as long as or scarcely longer than first posterior cell; second posterior cell tending to be also subparallel-sided and its sides not very divergent or sinuous as in *pulchriceps*; base of second submarginal cell without an appendix; knobs of halteres entirely very pale yellowish or pallid, shorter, blunter apically, not elliptical and pointed as in *halteralis*, the stalk relatively longer, at least one and a half times length of knob. Head with the frons also shining in both sexes; interocular space on vertex nearly or about twice width of ocellar tubercle in ♀ and at narrowest part in ♂ about as wide as narrow front part of tubercle; frons anteriorly distinctly depressed, especially in ♀; antennae apparently slightly more widely separated at bases than in *halteralis*, the space between them being not or scarcely narrower than that between antennae and margin of eye; thickened first antennal joint about or a little more than twice length of small second joint; third antennal joint shaped as in *halteralis*, its slender part also markedly long and also quite or nearly thrice length of bulb-shaped base; proboscis about 1.4-2 mm long, projecting much beyond buccal cavity, its labellar lobes narrow, elongate, much shorter than basal part. Legs, unlike those of *halteralis*, with distinct longish bristle-like spinules on basal joint of front tarsi below in ♀, similar to those of *pulchriceps*; middle femora also with one spine on inner lower part; hind ones with only about 2 spines on outer lower part and one near apex above.

Length of body : about 5-8 mm.

Length of wings : about 5-8 mm.

The more or less uniformly darkly infuscated and slightly pinkish or reddish-mauvish tinted wings distinguish this species at once from most other known African species of this genus. Other South African species with more or less uniformly infuscated wings, such as *acutangula* var. *transvaalensis* HESSE and *infuscata* BEZZI, are much larger, with less darkly tinged wings, and with other diagnostic characters.

From 9 specimens : Grande Kafwe, affl. dr. Lufwa, alt. 1.1780 m, 5.III.1948, 1 ♂-holotype, 1 ♀-allotype, 1 ♂-paratype and 2 ♀-paratypes; Kabwekanono, mars près tête de source Lufwa, affl. dr. Lufira, sur rive g. Lusinga, alt. 1.815 m, 6.III.1948, 2 ♂-paratypes, 2 ♀-paratypes.

## EXOPROSOPINAE.

### 7. — *Thyridanthrax ternarius* BEZZI.

This apparently widely distributed species, with characteristic dark fenestrated wings, which BEZZI described in 1924 and which I redescribed in 1956 from South African representatives is represented by a single specimen. This species is apparently variable, occurring in several varietal forms which differ from each other in the extent of the dark on the face and anterior part of frons, the paleness or darkness of the tibiae, the presence of pale or dark scaling on the legs, the extent of pale parts and fenestrae in the wings, the extent of the white hairs and white scaling on the abdomen above and also the extent of the pale or dark hairs and scaling on venter posteriorly.

This specimen from the Congo differs from the South African form in having the anterior part of frons and face distinctly less extensively yellowish red, the discal part of face being more extensively darkened or dark-scaled; alula and squama dark; sides of tergite 2 with more extensive black hairs and those on sides basally of tergite 3 also more extensively black; transverse bands of white scaling across tergites 3 and 4 distinctly more broadly interrupted by black ones; and sternite 5 more extensively or entirely dark-scaled.

It agrees in most characters with the species *speciosus* described by me from Rhodesia in 1956 and which latter species may be considered as only representing a distinct variety of *ternarius*. From this Rhodesian variety it however differs in having less extensive black on face, no black pre-alar bristles, no extensive and intensely black hairs in lower part of mesopleural tuft, no black hairs anteriorly in metapleural tuft, and distinctly less or much fewer dark or black hairs on anterior coxae. Lusinga, riv. Lusinga, affl. dr. Lufwa, alt. 1.810 m, 20.VII.1945, 1 ♂.

### 8. — *Exoprosopa luteicosta* BEZZI.

This species which BEZZI described from South African specimens is represented by the non-typical dark-faced form which I mentioned in my redescription of the species in 1956, and of which I have also seen specimens from East Transvaal, Rhodesia and Portuguese East Africa, and to which



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some of the specimens from the Belgian Congo, Nyasaland and East Africa, enumerated by BEZZI in 1924, probably also belong : [Bukena près Mulongo, alt. 617 m, VI.1949 (don A. SIMON, 1 ♂, 1 ♀)].

9. — **Exoprosopa** sp. ?

A single ♀-specimen of a species which belongs to the *Exoprosopa lutei-costa*-section and which, though probably new to science, cannot at present be described from a unique specimen in view of the fact that some confusion exists in this section and that even the various known species are difficult to separate on one sex only : Mukana, marais près Lusunga, alt. 1.180 m, 18.III.1948.

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