

PARC NATIONAL DE L'UPEMBA
I. MISSION G. F. DE WITTE
en collaboration avec
W. ADAM, A. JANSSENS, L. VAN MEEL
et R. VERHEYEN (1946-1949).
Fascicule 38 (5)

NATIONAAL UPEMBA PARK
I. ZENDING G. F. DE WITTE
met medewerking van
W. ADAM, A. JANSSENS, L. VAN MEEL
en R. VERHEYEN (1946-1949).
Aflevering 38 (5)

NERIIDÆ (DIPTERA ACALYPTRATA)

BY

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Flies of this small family of *Acalyptrata Diptera* were not well represented in this collection. One half of the species will be described or redescribed and figured in other works of the author (*Neriidæ* in the Collection of the Musée royal du Congo Belge, in Rev. Zool. Bot. Afr.). A key and general review of the *Chætonerius* species of the Belgian Congo will be given in another paper (*Neriidæ* of the Belgian Congo, in the Bull. Inst. roy. Sci. nat. Belg.).

The writer is indebted to M. V. VAN STRAELEN, Chairman of the « Institut des Parcs Nationaux du Congo Belge », for the privilege of studying this material. The collection contained only 16 specimens of 4 *Chætonerius* species, of which *C. wittei* is described here as new to science. All specimens were from the « Parc National de l'Upemba » and were collected by the Mission G. F. DE WITTE.

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

1. — *Chætonerius apicalis* (WALKER).

Seven specimens are in the collection from the following localities : ♂, ♀, Kanonga (affl. dr. Fungwe), 700 m, 17-22.II.1949 (2371 a); ♂ [Kiama-koto-Kiwakishi, 1.070 m, 4-16.X.1948 (1888 a) and ♀ 20.IX.1948 (1842 a)]; 2 ♀ ♀ Ganza (près riv. Kamandula, affl. dr. Lukoka), 860 m, 12-18.VI.1949 (2684 a) and 30.V-10.VI.1949 (2679 a); ♀, Lusinga, 1.760 m, 10.VI.1949 (1126 a).

2. — *Chaetonerius ghesquierei* ACZÉL.

One male paratype specimen from riv. Lupiala, 30.VI.1945 (173).

3. — *Chaetonerius latifemur* ENDERLEIN.

(Fig. 8-14.)

Two male specimens are in the collection from Ganza, 860 m, 12-18.VI.1949 (2685 *a*, 2686 *a*, 2719 *a*) and from Kabwe, 1,320 m, 16-25.V.1948 (1628 *a*).

This species is one of the more common ones of the Belgian Congo. It is very variable in size and differs from all other examined species by having the fore coxæ of the male brown, by having 1-2 dorsocentral bristles (the prescutellar one and before this usually a weak and short bristle, not longer than one third of the prescutellar pair) and all femora uniformly dark brown. I give here the redescription of this species.

Male. — Body 6,2-10 mm long; wing 5,3-9,3 mm long and 1,3-2,3 mm wide, 4,1-4 times as long as wide.

Head : 1,13-1,91 mm long, 1,27-2,07 mm wide and 0,93-1,52 mm high. The head in profil (fig. 8-9) below the eyes is rather darkened, reddish to yellowish brown, covered with whitish dust; before the eyes it is brownish black; middle third of the 0,18-0,27 mm long occiput dark brown, upper third testaceous yellow to yellowish brown. Frons between the eyes depressed. Frontal orbits (genovertical plates) slightly shining testaceous yellow to brown; frontal vitta dull reddish yellow to red with the usual Y-shaped black mark. Eyes in profil 0,91-1,31 mm long and 0,76-1,11 mm high. Mouth parts yellowish brown to dark brown.

Antennæ brownish black; scape 0,11-0,13, pedicel 0,30-0,40 (body 0,07-0,20, « inner process » 0,23-0,20) and postpedicel 0,41-0,45 mm long. Arista dark brown with short pubescence of the same color.

Head bristles shining black : 2 minute hair-like *orsa*, the anterior pair weaker, the posterior not one half as long as the *vti*; 1 *orss*, usually shorter than the converging *pvt* but longer than the diverging *vte*; genal bristle shorter than *vte*. There are some short *occe* bristles behind the eye.

Thorax : 1,9-3,2 mm long, 1,3-2,1 mm wide and 1,6-3,3 mm high, dark brown excepting a conspicuous yellow vitta on both sides between mesonotum and pleuræ, occupying the major part of the humeral callus (postpronotum), notopleural region and wing basis, but not the pleurotergites as in *apicalis*. Pleuræ sparsely grayish dusted. A wide median vitta of the mesonotum, and in its continuation the scutellum (except the narrow lateral sides) pale brown, grayish dusted; the median vitta on the prescutum contains a pair of dark brown linear vittæ.

Thorax bristles strong, shining black. This species has only one pair of normally long *dc* bristles, the prescutellar pair, and before this usually stands a weak pair, never longer than one third of the hind pair. Scapular bristles absent; 2 *npl*, the hind pair about twice as long as the anterior pair and much stronger; 1 short *sa*; 1 *pa* approximately as long as the prescutellar *dc* and the apical *sc*; basal *sc* more or less one half as long as the apical pair; 1 *prpl* short and strong.

Legs : procoxa always as dark brown as the mesocoxa, metacoxa and femora. All femora and tibiae dark brown, tarsi darker. Procoxa with the two apical bristles and with a dorsal row of 3-4 strong spines (fig. 10); fore femora with an anteroventral row of short black spines, ant with an posteroventral row of minute black spinules. Tibial spurs 1 : 1 : 1, on the anterior tibia shorter than the dorsoapical bristle.

Wings yellowish brown tinged. More than the apical half of the R_1 cell (sometimes nearly entirely) dark brown. Third longitudinal vein (r_{4+5}) almost straight, *tp* but very slightly oblique. First costal section 0,23-0,43, second 2,80-4,33, third 0,73-1,47, and fourth at the wing apex 0,16-0,29 mm long. Prebasal section of the fourth vein (m_1) 1,13-2,16, median (between both cross-veins) 0,93-1,86, and ultimate 2,27-4,29 mm long. *ta* situated slightly distad to the middle of the discoidal cell (*Cd*).

Præabdomen : 2,7-4,2 mm long and 1,2-1,6 mm wide. Tergites testaceous yellow except for a linear median, and two wider lateral vittæ, which are dark brown. Sternites linear, brown; lateral membranes brownish yellow.

Postabdomen : the dark brown epandrium (9+10 syntergite) is nearly twice as long (0,80-1,02 mm) as the shining yellowish brown 7+8 syntergite (0,43-0,56 mm) and in dorsal view at the middle it is narrower than at the base (0,27-0,40 mm) or at the apex (0,20-0,25 mm wide). Only the basal half of the epandrium is shining (fig. 11-12), the apical half is sparsely covered with very fine whitish pubescence. The shape of the epandrium and of the shining yellow, linear surstyli is normal in this species.

Female. — Body 6,0-7,7 mm long; wing 5,6-7,4 mm long and 1,4-1,8 mm wide, 4-4,1 times longer than wide.

Head : 1,27-1,68 mm long, 1,31-1,68 mm wide and 0,95-1,20 mm high. Eyes 0,82-1,11 mm long and 0,75-0,88 mm high. Occiput behind the eye, in profil, 0,23-0,27 mm long. Antennæ : scape 0,13-0,16, pedicel 0,29-0,41 (body 0,09-0,16, « process » 0,20-0,25) and postpedicel 0,43-0,52 mm long. Thorax 2,1-2,8 mm long, 1,3-1,7 mm wide and 1,9-2,5 mm high. Head and thorax bristles as in the male.

Legs : procoxa testaceous yellow, bearing the two apical bristles and only one preapical dorsal bristle. Only on the apical half of the fore femora there is the rest of an anteroventral row of short and mostly weak black bristles present. Tibial spurs 0 : 1 : 1.

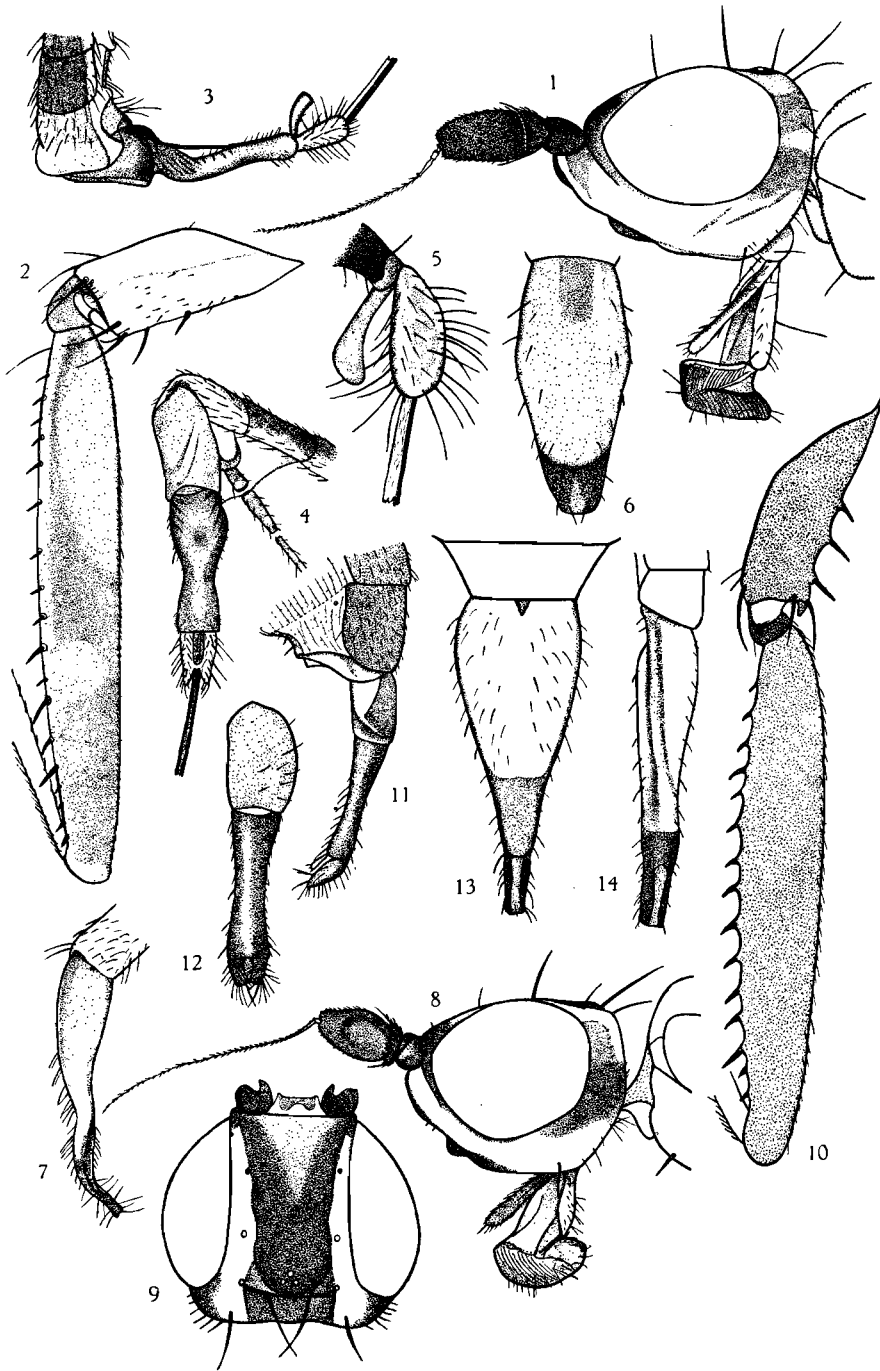


FIG. 1 to 14.

Wing : characters as in the male. First costal 0,23-0,38, second 2,86-3,63, third 0,79-1,50, and fourth 0,18-0,27 mm long. Prebasal section of the m_1 1,20-1,61, median 0,93-1,36, and ultimate 2,43-3,38 mm long. Preabdomen 2,4-3,2 mm long and 1,5-1,3 mm wide. Oviscape (fig. 13-14) 1,50-1,54 mm long and 0,60-0,61 mm wide, shining testaceous yellow to yellowish or reddish brown, apex and the narrow lateral margins darker.

4. — **Chætonerius wittei** n. sp.

(Fig. 1-7.)

This species has the same coloring of the legs as *apicalis* but it differs from *apicalis* by having the male on the procoxa a dorsal row of 2-3 bristles and on the fore tibia a ventral row of tiny black spinules, and from all known species by having the male strikingly large surstyli, the largest of all known *Neriidæ*.

It is more difficult however to separate the female of *wittei* from the female *apicalis*. The differentiating characters are as follows : at most only the apical third of the R_1 cell is brown in *wittei*, more than the apical half of the R_1 (sometimes nearly the whole cell) is brown in *apicalis*; all three pairs of coxæ and the major part of the sternopleurite (katepisternum) are yellow in *wittei*, the two hind pairs of coxæ and the entire katepisternum are brown in *apicalis*.

Male. — Body 7-6,8 mm long; wing 6,4-6,3 mm long and 1,7-1,8 mm wide, 3,7-3,5 times longer than wide.

Head : 1,50-1,41 mm long, 1,36-1,34 mm wide and 1,09-1,11 mm high. The head in profil (fig. 1) below the eyes is whitish dusted pale yellow; before the eye brownish black, and middle third of the 0,18-0,20 mm long occiput yellowish brown. Frons between the eyes strongly depressed; frontal orbits nearly dull, sparsely whitish dusted pale yellow; frontal vitta dull reddish yellow with the usual Y-shaped black mark. Eyes in perfil 0,95-0,95 mm long and 0,77-0,79 mm high. Mouth parts testaceous yellow, labellum and maxillary palpi brown to yellowish brown.

EXPLANATION OF FIGURES 1-14.

FIG. 1-7. — *Chætonerius wittei* n. sp

1. Head, lateral view; 2. Left fore coxa and femur of the male, anterior view;
3. Male postabdomen, lateral view; 4. Male postabdomen, dorsal; 5. Cercus and surstylus; 6. Oviscape, dorsal; 7. Oviscape, lateral.

FIG. 8-14. — *Chætonerius latifemur* ENDERLEIN.

8. Head, lateral view; 9. Head, dorsal view; 10. Left fore coxa and femur of the male, anterior view; 11. Male postabdomen, lateral; 12. Male postabdomen, dorsal; 13. Oviscape, dorsal; 14. Oviscape, lateral. (40 ×, except fig. 5, which is 80 × enlarged.)

Antennæ brownish black; scape 0,23-0,17, pedicel 0,37-0,31 (body 0,14-0,11, « process » 0,23-0,20) and postpedicel 0,45-0,45 mm long. Arista entirely dark brown, with short pubescence of the same color.

Head bristles shining black : only 1 pair of well developed *orsa*, as long as the *vti* and *ge*, sometimes a microscopically tiny, hair-like anterior pair also is present; 1 *vte*, slightly longer than these; the 1 *orss* and the crossing *pvt* are the longest of all. Behind the eyes there are 2 stronger and some weaker *occe* bristles present.

Thorax : 2,4-2,2 mm long, 1,4-1,4 mm wide and 1,9-2 mm high; pleuræ brighter colored than in the other species. The yellow vitta on both sides between the dark brown mesonotum and pleuræ is wide and includes the hind upper part of the mesopleurite (anepisternum) and the fore half of the pteropleurite (anepimeron). Furthermore the inferior pleurotergite and the major part of the sternopleurite (except a dark brown narrow upper margin and the anteroventral regions) are testaceous to brownish yellow in color. The coloring and pruinosity of the mesonotum as in *latifemur*.

Thorax bristles shining black and relatively long. Always 2 pairs of *dc* bristles are present on the scutum, the fore pair two thirds as long as the prescutellar pair; 2 *npl*, the hind pair is nearly twice as long as the anterior pair; 1 *sa*, 1 *pa*; 2 *sc*, the length of the basal pair is variable, less than one half to two thirds as long as the apical pair. 1 short propleural (*prpl*), as long as the genal (*ge*) bristle.

Legs : all coxæ and femora are testaceous to brownish yellow but the apical fourth of the femora is dark brown. Tibiæ yellowish brown except their tips which are as dark brown as the tarsi. Precoxa (fig. 2) with the usual two apical bristles and with a dorsal row of 2-3 black bristles. Fore femora with anteroventral row of short dark brown spines, and with a posteroventral row of minute dark brown spinules. Fore tibia with 2 ventral rows of tiny black spinules. Tibial spurs 0 : 1 : 1.

Wings : pale brownish tinged. Only the apical fifth to fourth of the R_1 cell is dark brown; *tp* but slightly oblique. First costal section 0,18-0,20, second 3,54-3,45, third 0,86-1,02, and fourth 0,18-0,20 mm long. Prebasal section of the fourth vein (m_1) 1,18-1,20, median 1,07-1,20, and ultimate 2,86-2,72 mm long; *ta* placed approximately in the middle of the discoidal cell.

Præabdomen : 2,8-2,7 mm long and 1,2-1,3 mm wide. Tergites testaceous yellow, except for a median and two lateral, dark brown vittæ. The median vitta is not linear, nearly as wide as the two testaceous yellow vittæ. Sternites linear, pale brown; lateral membranes dull pale testaceous yellow.

Postabdomen : shining reddish brown to dark brown, cerci and the strikingly large surstyli testaceous yellow (fig. 3-5). Epandrium but slightly longer (0,82-0,85 mm) than the 7+8 syntergite (0,68-0,68 mm) and in dorsal

view at its middle is narrower than either at the base (0,32-0,32 mm) or at the apex (0,25-0,23 mm). This species has the longest and largest surstyli in the family, which are nearly as long as the cerci.

Female. — Like the male. Body 6,1 mm long; wing 5,8 mm long and 1,6 mm wide, 3,6 times as long as wide.

Head : 1,34 mm long, 1,34 mm wide and 1,04 mm high. Occiput in profil 0,18 mm long; eyes 0,91 mm long and 0,77 mm wide. Antennæ : scape 0,16, pedicel 0,34 (body 0,14, « process » 0,20) and postpedicel 0,41 mm long. **Thorax :** 2,1 mm long, 1,3 mm wide and 1,9 mm high. Coloring of the legs as in the male. Procoxa with the two apical bristles and with only one preapical bristle. Fore femora and tibiæ without rows of ventral spine-like bristles or minute spinules; on the apical fifth of the fore femora there is but a short, spine-like, black, anteroventral bristle. Tibial spurs and wing characters as in the male. First costal section 0,18, second 3,17, third 0,81, and fourth 0,18 mm long. Prebasal section of *m*, 1,04, median 0,93, and ultimate 2,54 mm long. Preabdomen 2,1 mm long and 1 mm wide. Oviscape (fig. 6-7) shining yellowish brown, except the dark brown tip, 1,45 mm long and 0,59 mm wide.

Holotype : male : riv. Bowa (affl. dr. Kalule-Nord, près Kiamalwa), 1.050 m, 3-4.III.1949 (2401 *a*) and ♂ ♀ paratypes from the same locality.

Allotype : female : Kanonga, 700 m, 16-23.II.1949 (2366 *a*). Two paratypes, all females, from the following localities : [Kiamakoto-Kiwakishi, 1.070 m, 4-16.X.1948 (1886 *a*)] and Kalule-Nord (rive g. face Mujinga-Kalenge), 1.050 m, 28.II-3.III.1949 (2399 *a*).

Type, allotype and three paratypes returned to the « Institut des Parcs Nationaux du Congo Belge ». One paratype in the « Instituto Miguel Lillo, Tucumán ».

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