

*This contribution is published
to honor Dr. Amnon Freidberg,
a scientist, a colleague and a friend,
on the occasion of his 75th birthday.*

New conopid records from the Afrotropical Region (Diptera: Conopidae). Part 2: Conopinae excluding Physocephalini

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ABSTRACT

New records of 36 species in the conopid genera *Aegloconops*, *Archiconops*, *Caenoconops*, *Conops*, *Euconops*, *Pleurocerinella*, *Schedophysoconops*, *Tammo* and *Tropidomyia* are presented from the Afrotropical Region. Three species new to science are described: *Conops occultus* n. sp. (Ethiopia), *Conops schachti* n. sp. (The Gambia) and *Pleurocerinella kirkspriggsi* n. sp. (Cameroon). Primary types of 37 species have been investigated. The following 17 new synonyms are introduced: *Conops bicolor* Kröber, 1931 = *Conops claripennis* Camras, 1962 n. syn.; *Conops elegans* Meigen, 1804 = *Conops capensis* Wiedemann, 1819 n. syn. = *Conops natalensis* Macquart, 1846 n. syn. = *Conops decipiens* Kröber, 1933 n. syn.; *Conops argentispatium* Brunetti, 1929 = *Conops congoensis* Camras, 1962 n. syn. = *Conops nigriensis* Camras, 1962 n. syn.; *Conops braunsii* Kröber, 1915 = *Conops castaneus* Brunetti, 1925 n. syn.; *Conops rugifrons* Karsch, 1888 = *Conops camaronensis* Kröber, 1939 n. syn.; *Conops simplex* Kröber, 1915 = *Conops aureocinctus* Kröber, 1915 n. syn.; *Conops ferruginosus* Kröber, 1915 = *Conops concolor* Brunetti, 1925 n. syn. = *Conops fraternus* Kröber, 1933 n. syn. = *Conops atrimanus* Kröber, 1939 n. syn. = *Conops bicingulatus* Camras, 2000 n. syn. = *Conops tschirnhausi* Stuke, 2012 n. syn.; *Conops guineensis* Kröber, 1915 = *Conops brunnipennis* Kröber, 1915 n. syn.; *Conops nigritarsis* Brunetti, 1925 = *Conops conwayae* Stuke, 2003 n. syn.; *Physocephala longicornis* Kröber, 1915 = *Physoconops notatifrons* Camras, 1962 n. syn.). Four species are treated as unrecognised (nomina dubia): *Conops brunnifrons* Kröber, 1915, *Conops kerteszi* Kröber, 1915, *Conops nitidulus* Bigot, 1891 and *Conops platyfrons* Kröber, 1915. A lectotype is designated for *Conops castaneus* Brunetti, 1925. *Conops bicolor* Kröber, 1931, misidentified as *Conops rhodestiensis* Brunetti, 1925 in the original designation by Kröber (1939), is selected and thereby fixed as the type species for *Caenoconops* Kröber, 1939 (under Article 70.3 of the Code). *Physocephala longicornis* Kröber, 1915 is transferred to the genus *Schedophysoconops*, thus becoming *Schedophysoconops longicornis* (Kröber, 1915) n. comb. Diagnostic keys are presented for Afrotropical Conopinae genera with ocelli, as well as for the subgenera and all Afrotropical species of *Conops*. Keys to Afrotropical species of *Archiconops* p.p., *Caenoconops*, *Pleurocerinella* p.p. and *Tropidomyia* are also compiled.

KEYWORDS: Diptera, Conopidae, *Aegloconops*, *Archiconops*, *Caenoconops*, *Conops*, *Dacops*, *Euconops*, *Pleurocerinella*, *Physocephala*, *Pseudophysocephala*, *Schedophysoconops*, *Tammo*, *Tropidomyia*, thick-headed flies, new species, primary types, new synonyms, type species, lectotype, faunistic records, nomen dubium, identification key.

INTRODUCTION

This is the second part of a work presenting faunistic records of Conopidae from the Afrotropical Region. The first part dealt with the subfamilies Myopinae and Stylogastrinae (Stuke 2015). The present paper covers all of the Conopinae with the exception of the Physocephalini (*Physocephala*, *Pseudophysocephala*, *Dacops*), which will be treated elsewhere. Although originally planned as a faunistic work only, it soon became obvious that revisionary work was also necessary, and that the diagnosis of several species had to be worked out with greater accuracy than was done by previous authors. The results of these efforts are summarised in new keys covering almost all Afrotropical conopid genera. Several dubious species are also discussed, resulting in a number of new synonyms and some *nomina dubia*.

MATERIALS AND METHODS

Terminology for the species descriptions is mainly adopted from Cumming and Wood (2009). The terminology used to describe the postabdomen is additionally illustrated in Figs 82–86, 120, 121. The term “hair” is replaced by “setula” since it is not possible to distinguish between genuine hairs and setulae. The term “seta” is used only where the structure is clearly stronger and more robust than the surrounding setulae, or it can be identified as one of the known setae of the acalyptrate chaetotaxy. Numbers of setae refer to one side of the body only. For any form of “microtomentosity” the more common term “dusting” is used. In few specimens the abdomen was dissected, macerated for about 4–6 hours in the aqueous solution of sodium hydroxide at room temperature and stored in a microvial in glycerine together with the pinned specimen.

The historically important collections of the MRAC, ZMHB and NMHL have been revisited and the material held therein has been re-identified almost completely. In the NHML, however, there were many specimens sorted under *Conops rondanii*, *Conops zonatus*, *Conops elegans*, *Conops brunnipennis*, *Physocephala bimarginipennis* and *Physocephala maculigera*, which, due to the restricted time available, could not be re-identified in detail. Records that I have previously published elsewhere are not repeated here, other than for the purpose of corrections. Faunistic data are adopted from the specimen labels with as few changes as possible. Some locations are changed to more commonly used names, provinces are added, or interpretations of locations are added in square brackets. Locations that could not be found with an Internet search or otherwise interpreted, or abbreviations that could not be resolved are given in quotation marks. For primary type material the original labels are cited verbatim; these labels are listed and numbered in the order found, commencing with the uppermost. Line breaks on labels are indicated by a forward slash (/), and where there is an actual slash on the labels, it is included without spaces before and after. Where text on labels could not be deciphered with certainty the line is marked by “[?]”. Determination labels are also quoted to help interpret the identifications given by previous researchers.

The following acronyms are used for collections mentioned in the text:

AMGS	Albany Museum, Grahamstown, South Africa, Cape Province
BMSA	National Museum Bloemfontein, Bloemfontein, South Africa
CAS	California Academy of Sciences, San Francisco, USA
CULSP	Czech University of Life Sciences, Prague, Czech Republic
IITA	International Institute of Tropical Agriculture, Abomey-Calavi, Benin
ISNB	Institut Royal des Sciences Naturelles de Belgique, Brussels, Belgium
MLUH	Martin-Luther-Universität, Wissenschaftsbereich Zoologie, Halle a. d. Saale, Germany
MNHN	Muséum National d'Histoire Naturelle, Paris, France
MRAC	Musee Royal de l'Afrique Centrale, Belgium, Tervuren
NHML	The Natural History Museum of London, London, UK
NMKE	National Museum of Kenya, Nairobi, Kenya
PASS	private collection Axel Ssymank, Bonn, Germany
PJHS	private collection Jens-Hermann Stuke, Leer, Germany
PMHA	private collection Martin Hauser, Sacramento, USA
PMME	private collection Maurizio Mei, Rom, Italy
RMNH	Nationaal Natuurhistorische Museum ("Naturalis"), Leiden, The Netherlands
SDEI	Senckenberg Deutsches Entomologisches Institut, Müncheberg, Germany
SMTD	Staatliches Museum für Tierkunde, Dresden, Germany
SMWN	National Museum of Namibia, Windhoek, Namibia
SMNHTAU	Steinhardt Museum of Natural History, Tel Aviv, Israel
UCDC	R.M. Bohart Museum of Entomology, Univ. of California, Davis, USA
ZFMK	Zoologisches Forschungsinstitut und Museum "Alexander Koenig", Bonn, Germany
ZMHB	Museum für Naturkunde der Humboldt-Universität, Berlin, Germany
ZSM	Zoologische Staatssammlung, München, Germany

Duplicates of the material have been retained in the collection of the author for further research. The current nomenclature is based on Stuke (2017). For each species mentioned in this work all known Afrotropical synonyms are listed.

TAXONOMY

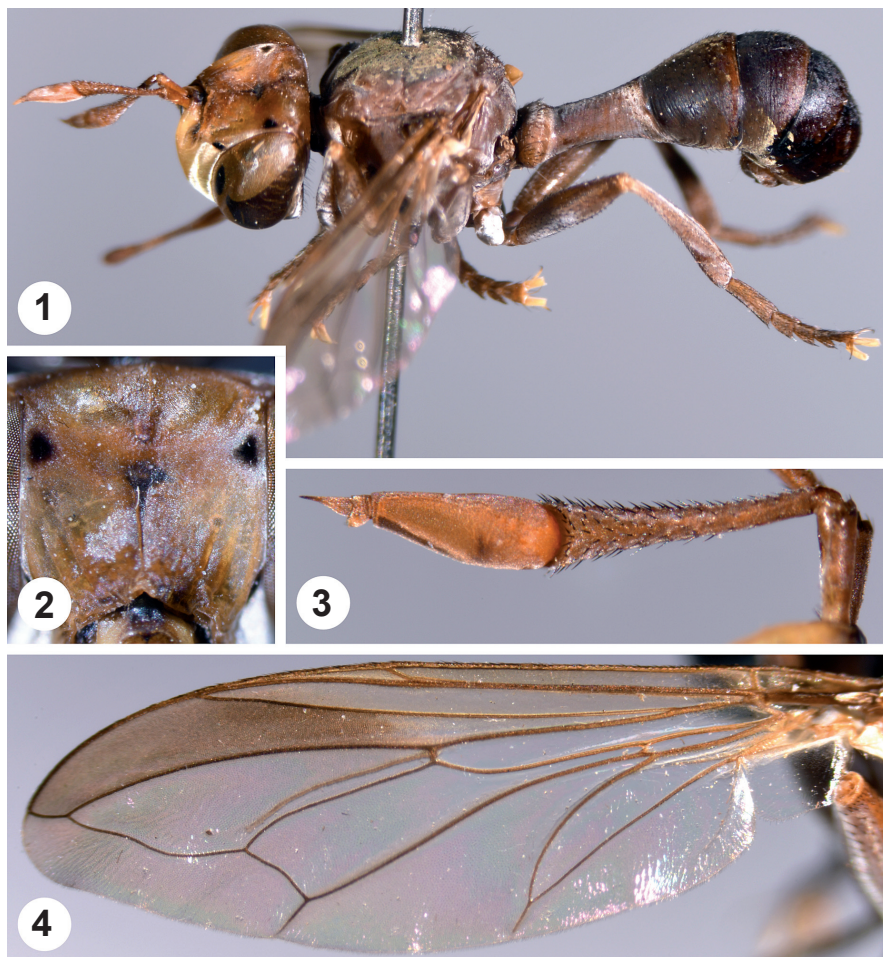
Family Conopinae Macquart, 1834

The genera of Afrotropical Conopinae can be identified using the key of Stuke (in press).

Tribe Conopini Macquart, 1834

Genus *Aegloconops* Gibson, 2013

This genus, and the only included species, is described and illustrated by Gibson and Skevington (2013) and is included in Key 2 below (p. 284).



Figs 1–4: *Aegolconops quadripunctatus* (Kröber, 1915), ♂, N'Djamena: (1) habitus, lateral view; (2) frons, dorsal view; (3) antenna, lateral view; (4) wing, dorsal view.

Aegolconops quadripunctatus (Kröber, 1915)

(Figs 1–4)

Material examined: **Chad:** 1♂, N'Djamena, 5.ix.1978, G.G.M. Schulten (RMNH). **Namibia:** 1♂, 1.ii.1993, 100 km SW Rundu, M. Schwarz (PMHA). **South Africa:** *KwaZulu-Natal:* 1♀, Weenen [28°50'S 30°05'E], ii.1926, H.P. Thomasset, det. as *C. quadrifasciatus* [sic!] by Kröber 1938, det. as *C. quadripunctatus* by Camras 1999 (NHML NHMUK013644288).

Genus *Anticonops* Kröber, 1936

To date the female holotype of *A. abdominalis* is the only known specimen of this genus.

Anticonops abdominalis Kröber, 1936

Holotype of *Anticonops abdominalis* Kröber, 1936 (examined): ♀ bearing following labels: (1) "Type / A. ♀ / *abdominalis*"; (2) "Musée du Congo / Bambesa / - XII. 1933 / H.J. Brédo"; (3) "*Anticonops / abdominalis* / ♂ [sic!] Krb / det. Kröber 1935"; (4) "RMCA ENT / 000012167"; (5) "R. DÉT" / C / 2992" (MRAC).

Genus *Archiconops* Smith, 1975

Archiconops species can be identified using the key of Stuke (2004) and Key 1 below (p. 282).

Archiconops conspicuus (Brunetti, 1925)

Holotype of *Conops conspicuus* Brunetti, 1925 (examined): ♂ bearing following labels: (1) "Holotype"; (2) "Entebbe / Uganda / 1.V.1913. / No. 3200 C.C. Gowdey."; (3) "*Conops / conspicua* / Brun. Type ♂ / Det. E. Brunetti 1924" (NHML).

Archiconops crypticus Stuke, 2004

Material examined: Democratic Republic of Congo: 2♀, Sangha Province, 20 km SW Cabosse [2°00'28"N 13°54'22"E], 530 m, 2.xi.2016, J. Halada (CULSP); 1♂, Sangha Province, Cabosse env. [2°08'49"N 13°56'47"E], 510 m, 3.xi.2016, J. Halada (CULSP).

Archiconops hova (Janssen, 1954)

Material examined: Madagascar: 1♀, Berenty reserve 80 km W of Port Dauphin [25°00'S 46°18'E], 9.iv.1994, M. Wasbauer (UCDC).

Remarks: Stuke (2005) recognized *A. hova* as belonging to *Archiconops* and originally synonymised it with *A. insularis* because only slight differences between the female holotype of *A. hova* and the available male specimens of *A. insularis* were found. However, Camras (2007) subsequently examined the first confirmed male of *A. hova* and reported an additional character to separate males. Camras therefore reinstated *A. hova* as a good species, a decision that was accepted by Stuke (2017). Camras (2007) mentioned three characters to distinguish *A. hova* and *A. insularis*: (i) *A. hova* has denser dusting on the scutum and abdomen, this character was considered before by Stuke (2005) but was evaluated as being of minor significance; (ii) The wing of *A. insularis* is stated to be broader than half of its length whereas *A. hova* has a narrower wing. This character could not be verified in the material of *A. insularis* that I have at hand. The wing in these specimens is distinctly narrower than half its length; (iii) *A. hova* has a short protandrium (i.e. "a relatively short apical abdominal segment in the male, slightly shorter than the height"). This character rather depends on how one measures the height. In the specimens of *A. insularis* I have at hand the protandrium is slightly longer than the height (when viewed from the side) if the latter is measured from the base of the protandrium, but shorter if the maximum total height is measured due to the slightly protruding sternite 8 of the protandrium.

I am therefore not personally convinced that *A. hova* is a valid species, and it is at the very least suspicious that I seem only able to identify males of *A. insularis*

and females of *A. hova*. The available and perhaps most constant characters to distinguish the species of the *A. insularis* group are summarised in Key 1.

Archiconops insularis Kröber, 1936

Holotype of *Archiconops insularis* Kröber, 1936 (examined): ♂ bearing following labels: (1) "Type / C. ♂ / *insularis*"; (2) "Musée du Congo / Ile S. Thomé / 1932 / H. De Saeger"; (3) "*Conops* ♂ / *insularis* / Krb. / det. Kröber 1935"; (4) "FMNH-INS / 0000 040 106"; (5) "R. DÉT / D / 2992"; (6) "*Archiconops* / *insularis* / (Kröber) / Camras 2007"; (7) "RMCA ENT / 000012166" (MRAC).

Material examined: Madagascar: Fianarantsoa Province: 1♂, ANGAP Headquarter, Ranomafana, town, Malaise trap near stream, 740 m [21°14.91'S 47°27.13'E], 14.ii.2002, R. Harin'Hala, M. Irwin (CAS); 1♂, Ranomafana National Park, radio tower at forest edge, mixed tropical forest [21°15.05'S 47°24.43'E], 1330 m, 25.xii.2009, M. Irwin, R. Harin'Hala (CAS).

Archiconops niger Kröber, 1939

Holotype of *Conops niger* Kröber, 1939 (examined): ♂ bearing following labels: (1) "Madagascar / Ampanalana / 14.vi.34 / L.P. Regnard"; (2) "Pres. By / Imp. Inst. Ent. / B. M. 1938-169"; (3) "*Conops* / *unicolor*, Kröb. / Det. G.A.K. Marshall."; (4) "*Archiconops* / *niger* Kröber / det. K. G. V. Smith, 196" [not in Ken Smith's writing]; (4) "BMNH(E) / 248946" (NHML).

Archiconops pseudoerythrocephalus Stuke, 2004

Material examined: Democratic Republic of Congo: 1♂, Luputa, 1.ii.1939, H.J. Brédo (ISNB); 1♀, Kasal Central, Luluabourg [=Kananga], det. as *A. erythrocephalus* by Kröber 1938, no date, collector unknown (NHML NHUMK013644261). **Kenya:** 1♂, Witu, 19.ix.1916, R.C. Wood, det. as *P. erythrocephalus* by Kröber 1938 (NHML NHUMK013644312). **Malawi:** 1♀, Nyasaland, "Kooa Valley", 8.iv.1913, S.A. Neave, det. as *A. erythrocephalus* by Kröber 1938 (NHML NHUMK013644262); 1♀, Nyasaland, "m. Zanje", 22.?.1913, S.A. Neave, det. as *A. erythrocephalus* by Kröber 1938 (NHML NHUMK013644260); 1♂, Nyasaland, Cholo [=Thyolo District], no date, R.C. Wood (NHML NHUMK013644260); 1♂, Nyasaland, Cholo [=Thyolo District], 21–25.iv.2010, R.C. Wood, det. as *A. erythrocephalus* by Kröber 1938 (NHML NHUMK013644310); 1♀, Nyasaland, Fort Johnston [=Mangochi], no date, P. Render, det. as *A. erythrocephalus* by Kröber 1938 (NHML NHUMK013644263); 1♂, Nyasaland, Mlanje [=Mulanje], 10.iii.1913, S.A. Neave, det. as *A. erythrocephalus* by Kröber 1938 (NHML NHUMK013644308); 1♂, same (NHUMK013644307); 1♂, Nyasaland, Ruo Valley, 1000–2000 ft, 21–25.iv.2010, S.A. Neave, det. as *A. erythrocephalus* by Kröber 1938 (NHML NHUMK013644311); 1 specimen, Nyasaland, Ruo Valley, 1000–2000 ft, 21–25.iv.1910, S.A. Neave, det. as *A. erythrocephala* by Kröber 1938 (NHML NHUMK013644257); 1♂, Nyasaland, Weap Bay, 13.v.1900, G.B. Wavey, det. as *A. erythrocephalus* by Kröber 1938 (NHML NHUMK013644309); 1♀, Karonga District, Nyasaland, Deep Bay, 10.viii.1911, M. Sanderson, det. as *A. erythrocephalus* by Kröber 1938 (NHML NHUMK013644264). **Mozambique:** 1♂, Beira, vi.1932, J. Ogilvie (NHML NHUMK013644306); 1♂, same, vi.1932 (NHUMK013644306). **South Africa: KwaZulu-Natal:** 1♀, Mkuze Game Reserve [27°37'S 32°14'E], 8–12.iii.1987, A.J. Weaving (AMGS). **Tanzania:** 1♀, Old Shinyanga, 15.vi.1954, E. Burt, det. as *A. erythrocephalus* by Kröber 1938 (NHML NHUMK013644266). **Uganda:** 1♀, W Buboga, 29.vii.1911, collector unknown, det. as *A. erythrocephalus* by Kröber 1938 (NHML NHUMK013644265); 1♀, West Mengo District, Entebbe, 1.v.1913, C.C. Gowdey (NHML NHUMK013644259); 1♀, same, 15.v.1913 (NHUMK013644258).

Key 1: Species of the *Archiconops insularis*-group *sensu* Stuke (2004).

Characters are combined from Stuke (2004, 2005), Camras (2007) and new observations.

- 1 Claws basally brown; haltere black, only slightly paler basally; tergites 2–3 with broad black medial longitudinal stripe *A. niger* Kröber, 1939

- Claws basally white; haltere orange-brown to whitish; only slightly darkened basally; tergites 2–3 with narrow black medial longitudinal stripe.....2
- 2 Abdomen and scutum only slightly dusted; ♂: protandrium slightly longer than height at its base *A. insularis* Kröber, 1939
- Abdomen and scutum distinctly dusted; ♂: protandrium shorter than height at its base *A. hova* (Janssen, 1954)

Genus *Caenoconops* Kröber, 1939

Although the genus *Caenoconops* can be recognised easily and is well characterised in the original description, there is much confusion concerning the authorship and type species. Kröber (1939: 372) described *Caenoconops* briefly as follows: “Dann muss aber auf jeden Fall für *Conops rhodesiensis* Brun. ein neues Genus geschaffen werden. Für *Conops* gibt Szil. das gleichmässig schwach konvex begrenzte Vertexkissen an. *C. rhodesiensis* aber hat ein Vertexkissen, das vorn dreimal tief ausgebuchtet ist und dessen Mittelstück ein deutliches Ozellenhöckerchen trägt, eine Bildung, die ich bei keiner anderen Form wiedergesehen habe. Ich nenne diese Gattung *Caenoconops*, n. gen.”. Kröber included this new genus as *Caenoconops* gen. nov. in his key on the following page 373. Smith (1980) evidently overlooked the short description and the comment concerning *Conops rhodesiensis* on page 372 but found the genus name *Caenoconops* in the key on page 373. Consequently Smith (1980) listed the genus in the catalogue of Afrotropical Diptera as “*Caenoconops* Kröber, 1939: 373” and designated “*Conops rhodesiensis* Brunetti, 1925” as the type species. This incorrect catalogue citation led Evenhuis *et al.* (2008) to the conclusion that *Caenoconops* is a post-1930 Diptera genus-group name without a type species designation, from which they concluded that *Caenoconops* Kröber, 1939 is a *nomen nudum*, and that the correct name for the genus was only created by the type species designation of Anonymous (1940). Anonymous (1940), however, designated *Caenoconops subapicalis* Kröber, 1939 as the type species of *Caenoconops*. The view of Evenhuis *et al.* (2008) was subsequently adopted by Gibson and Skevington (2013) in their revision of conopid genera. When looking at the page number given for Kröber’s description of *Caenoconops* it is obvious that both Evenhuis *et al.* (2008) and Gibson & Skevington (2013) also overlooked—as Smith (1980) did before—the description of *Caenoconops* on page 372 of Kröber’s work. Camras (2000) correctly recognised the description on page 372, but failed to point out the type species designation by Kröber. Nevertheless, on page 372 of his 1939 work Kröber unquestionably fixed *Conops rhodesiensis* as the type species for his new genus as cited above, and therefore his description of *Caenoconops* is valid with *Conops rhodesiensis* Brunetti, 1925 as the type species by original designation. This interpretation was adopted in the world checklist of Stuke (2017).

Camras (2000) also realised that *Conops rhodesiensis* was misinterpreted by Smith (1980) and correctly excluded it from *Caenoconops* and included it instead in *Physoconops*. Camras (2000) unjustifiably postulated *Conops bicolor* Kröber,

1931 to be the type species of *Caenoconops* because this species was wrongly listed by Smith (1980) as a synonym of *Conops rhodesiensis*. Consequently Camras (2000) used *Caenoconops* as Kröber did. A recent examination of the holotype of *Conops rhodesiensis* Brunetti, 1925 shows that Kröber misidentified this species, however. *Conops rhodesiensis* belongs to *Schedophysoconops* Gibson, 2013 and not to *Caenoconops* sensu Kröber. In order to prevent more confusion and to serve stability and universality I herewith select and thereby fix as the type species for *Caenoconops* Kröber, 1939 (under Article 70.3 of the Code; ICZN 1999) *Conops bicolor* Kröber, 1931, misidentified as *Conops rhodesiensis* Brunetti, 1925 in the original designation by Kröber (1939).

Key 2 separates the Afrotropical genera of Conopinae with ocelli and with the first flagellomere at most about as long as the pedicel. Key 3 separates the two known species of *Caenoconops*.

**Key 2: Genera of Afrotropical Conopinae with distinct ocelli
and with the first flagellomere at most about as long as the pedicel.**

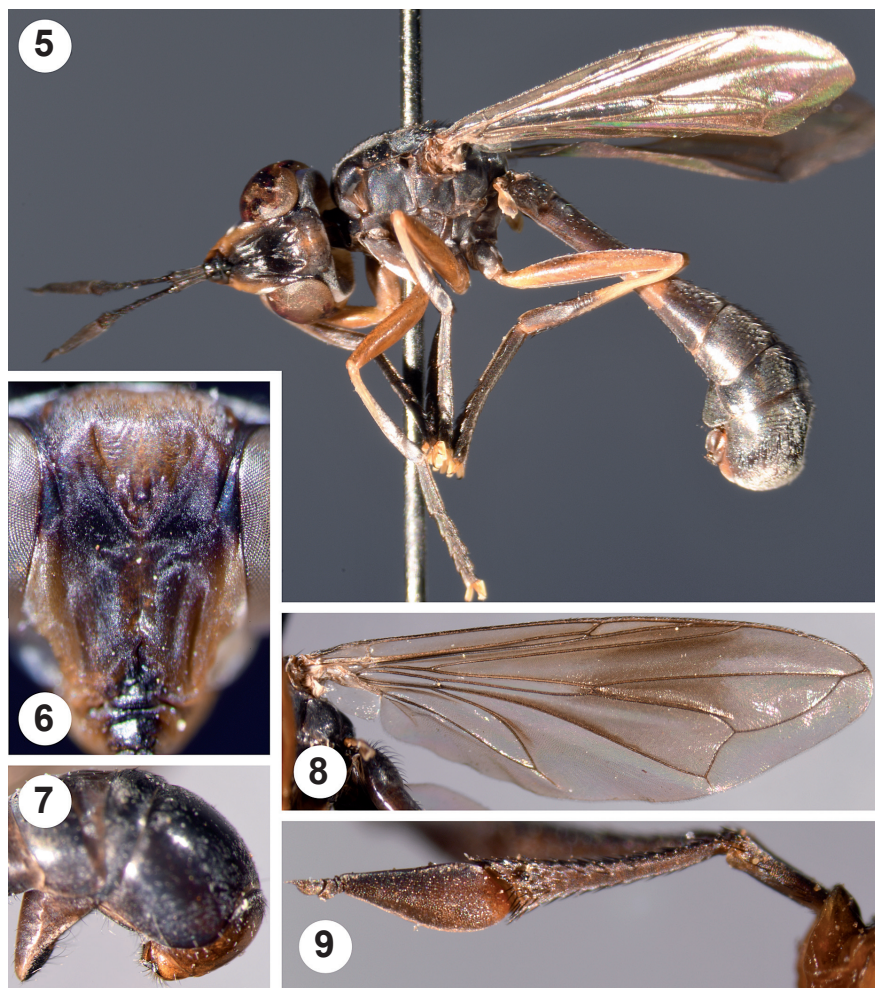
- 1 Gena completely silver dusted; wing slightly brownish to hyaline, with only radial cell r_{2+3} brownish apically (Fig. 4); frons orange-brown, with black frontofacial spots and another pair of dark spots above (Fig. 2); legs orange-brown; abdomen not obviously elongated (Fig. 1)..... *Aegloconops* Gibson, 2013
- Gena partly not shining dusted; wing with different pattern of dark colouration; frons more or less black, at most with frontofacial spots only; legs more or less black, especially tarsi usually black; abdomen obviously elongated..... 2
- 2 Ocellar tubercle elongated, triangular vertex distinct (Fig. 6); three ocelli (but these may be hard to see); palps very short but distinct, with black setae; medial aristemere not extended ventrally, apical aristemere with obvious broadened base (Fig. 9); wing without distinct darker anterior margin, radial cell r_{2+3} not completely dark and not contrasting with basal radial cell br (Fig. 8); basal medial cell bm and cubital cell cup mostly covered with microtrichia; postpronotal lobes black (Fig. 5); ♀ theca narrower, triangular, with posterior surface covered apically with black spines which are not arranged in lines (Fig. 7)
..... *Caenoconops* Kröber, 1939
- Ocellar tubercle not elongated, no distinct triangular vertex (Fig. 127); only two lateral ocelli present; palps absent; medial aristemere extended ventrally, apical aristemere without obvious broadened base (Fig. 126); anterior margin of wing completely brownish, radial cell r_{2+3} completely brown and contrasting with lighter basal radial cell br (Fig. 130); basal medial cell bm mainly without microtrichia, cubital cell cup basally without microtrichia; postpronotal lobes orange-brown to dark brown (Fig. 125); ♀ theca broad, posterior surface almost completely covered with black spines which are arranged in lines
.....*Schedophysoconops* Gibson, 2013

Caenoconops bicolor (Kröber, 1931)

(Figs 5–9)

Conops bicolor Kröber, 1931: 90.*Caenoconops subapicalis* Kröber, 1939: 376.*Caenoconops claripennis* (Camras, 1962): Camras 1962: 220 (as *Physoconops claripennis*), **n. syn.**

Syntype of *Caenoconops subapicalis* Kröber, 1939 (examined): ♂ bearing following labels: (1) “Syn- / type”; (2) “Type”; (3) “E. Cape Prov. / Katberg. / 1–10.ii.1933.”; (4) “S. Africa. / R.E. Turner / Brit. Mus. / 1933-139.”; (5) “*Conops / subapicalis*, Krb. / examined & det. O. Kröber, 1938.”; (6) “*Caenoconops / subapicalis* Krb / det. Kröber, 1938”; (7) “*Caenoconops / bicolor / Kröber / det. Camras. 1999*”; (8) “BMNH(E)# / 248958” (NHML).



Figs 5–9: *Caenoconops bicolor* (Kröber, 1931): (5) habitus, lateral view, ♂, Arabuko Sokoke Forest; (6) frons, dorsal view, ♂, Grahamstown; (7) theca, lateral view, ♀, NE Tete; (8) wing, ventral view, ♂, Arabuko Sokoke Forest; (9) antenna, lateral view, ♂, Mamates.

Material examined: **Burundi:** 1♀, Busoni, 1400 m, hand net, 5.vi.1955, F.J. François (ISNB). **Ethiopia:** 1♂, Sidamo Province, about 50 km NE Mega, 1420 m, 24.iv.2007, J. Halada (CULSP). **Kenya:** 1♂, Kathado, 27.iv.1967, D.J. Greathead, det. as *C. bicolor* by Camras 1999 (NHML NHMUK013644271); 1♂, Coast Province, N edge of Arabuko Sokoke forest [UTM 37 M 607257 9644873], 83 m, hand net, 28.v.2006, P. Cerretti, D. Avesani, G. Carpaneto, G. Nardi (PMME). **Lesotho:** 1♂, Mamathes, on *Acacia karroo* foliage, 3.ii.1952, C. Jacot-Guillarmod (AMGS). **Mozambique:** 1♀, 100 km NE Tete [15°26'S 34°20'E], hand net, 7.xii.2005, Kadlecová (CULSP). **South Africa: Eastern Cape:** 1♂, Grahamstown, on *Acacia karroo* foliage, 19.xi.1975, F.W. Gess (AMGS); 1♀, Queenstown [=Komani], 16.i–10.ii.1923, R.E. Turner, det. as *C. ater* by Kröber 1938, det. as *C. bicolor* by Camras 1999 (NHML NHMUK013644272); 1♂, Katberg, 1–10.xi.1933, R.E. Turner, det. as *C. ater* by Kröber 1938, det. as *C. bicolor* by Camras 1999 (NHML NHMUK013644270); 1♀, Lady Grey, 6.i.1926, R.I. Nel, det. as *C. rhodesiensis* by Kröber 1931, det. as *C. rhodesiensis* by Gibbson 2011 (NHML NHMUK013644269); 1♂, Lady Grey, 2.ii.1926, R.I. Nel, det. as *C. rhodesiensis* by Kröber 1931, det. as *C. rhodesiensis* by Gibbson 2011 (NHML NHMUK013644268); **KwaZulu-Natal:** 1♂, Royal Natal National Park, day visitor camp [28°41'25.4"S 28°56'53.9"E], 1410 m, 3.xii.2012, J. Oehlke (PASS).

Remarks: The material of *Caenoconops* I have at hand shows wide variation in the colouration of the wings, femur and head. Camras (2001: 207) remarked about *Caenoconops bicolor*: “A series of eight specimens from the Natal Museum shows a wide range of size and appearance. Light coloured specimens look much different from dark specimens, especially in the appearance of the wing”. I cannot find any consistent characters to distinguish between *C. rhodesiensis*, *C. claripennis* and *C. bicolor*, and therefore *Conops bicolor* Kröber, 1931 and *Physoconops claripennis* Camras, 1962 (n. syn.) are synonymised.

I also doubt that *C. freidbergi* is a valid species, but I have not seen any specimens that fit the original description and therefore I repeat the characters given in the original description in Key 3.

Key 3: Identification of the Afrotropical *Caenoconops* (based on Camras 2000).

- 1 Distinct black frontofacial spot; legs completely black; distinct dark wing marking completely filling radial cell r_{2+3} *C. freidbergi* Camras, 2000
 – At most with indistinct light brown frontofacial spot; legs completely to mainly orange-brown; wing marking indistinct, or if more distinct then radial cell r_{2+3} distinctly paler apically and basally than medially *C. bicolor* (Kröber, 1931)

Genus *Conops* Linnaeus, 1758

Three subgenera of *Conops* occur in the Afrotropical Region and can be identified using Key 4.

Key 4: Afrotropical subgenera of *Conops*.

- 1 Vertex anteriorly with fine longitudinal grooves (Fig. 106); $R_{4+5}+M$ short, distinctly shorter than half of the length of crossvein $r-m$ (Fig. 108); right-angle between crossvein $dm-cu$ and medial portion of media M (Fig. 198); frons with small transverse grooves anteriorly; posterior margin of eye convex and without a more or less distinct shining notch; first flagellomere about as long as pedicel (Fig. 104); ♀ anterior margin of tergite 6 without a notch
 *Smithiconops* Camras, 2000

- Vertex without fine longitudinal grooves; $R_{4+5}+M$ about as long as crossvein $r-m$; frons with or without transverse grooves; posterior margin of eye straight to slightly concave and usually with a more or less distinct shining notch; other characters variable.....2
- 2 Frons with transverse grooves (Fig. 27); ♀ anterior margin of tergite 7 with a notch *Asiconops* Chen, 1939
- Frons smooth, without transverse grooves (Fig. 95); ♀ anterior margin of tergite 7 without a notch *Conops* s. str.

Subgenus *Asiconops* Chen, 1939

Whilst I have no doubt that the Afrotropical *Conops* s. str. and the subgenus *Smithiconops* are monophyletic, this is not the case for the species-rich subgenus *Asiconops*. As a starting point I distinguish three easily recognised species-groups, which can be distinguished using Key 5. I am aware that these groups are not monophyletic, but the two characters used to distinguish the groups are easy to recognise and are usually mentioned in the descriptions of earlier authors.

Key 5: Afrotropical *Conops* (*Asiconops*) species-groups.

- 1 Head without frontofacial spot (Fig. 14)..... *C. ater* species-group
- Head with frontofacial spot (Fig. 59).....2
- 2 Parafacia and antennal grooves dusted and obviously contrasting with remaining face and gena (Fig. 59).....*C. ferruginosus* species-group
- Face and gena completely dusted (Fig. 42)*C. braunsii* species-group

Conops (*Asiconops*) *ater* species-group

The *ater* species-group as defined here includes all of the species, which Camras (1962) put in his *ater*-group and his *elegans*-group. These species can be identified using Key 6.

Conops (*Asiconops*) *ater* Macquart, 1844

(Figs 10, 11)

Material examined: **Benin:** 1♀, Contonore, 1.vi.1989, G.G.M. Schulten (PJHS); 1♀, Malanville, town border [11°50'36.35"N 03°23'32.03"E], xi.1996, G. Goergen (IITA); 1♂, same, light trap, ii.1997 (IITA); 1♂, Penjari [11°24'37.36"N 01°34'58.14"E], light attracted, 26.ii.2000, G. Goergen (IITA). **Burundi:** 1♂, Bubanza, 7 km S Gihanga, 9.iii.1952, F.J. François (ISNB). **Democratic Republic of Congo:** 1♀, Leopoldville [=Kinshasa], 15.ix.1950, M. Leclercq (ISNB); 1♂, Ubangi, Yakoma, 7.ii.1932, H.J. Brédo, det. as *C. ater* by Kröber 1935 (MRAC). **Eritrea:** 1♂, [signs illegible], "Eritrea", 31.i.1958, D.J. Greathead, det. as *C. ater* by Camras 1999 (NHML NHMUK010922068). **Ethiopia:** 1♀, 20 km SE Konsa [5°15'N 37°32'E], 850 m, 11–13.v.2015, J. Halada (CULSP); 1♂, Shewa Province, Lake Lango, 29–30.iv.2007, J. Halada (CULSP); 2♂, Sidamo Province, 40 km W Sodo, 1130 m, 12.iv.2007, J. Halada (CULSP). **The Gambia:** 1♀, 3 km NW Central Banjul, in vegetation along mangrove swamp [UTM 28PCK255890], 21–22.ii.1977, Cederholm, Daniellson, Hammarstedt, Hedqvist, Samuelsson (PJHS); 1♂, Bakau at tropic Bungalow [UTM 28PCK1790], in meadow rich in flowers at the beach, swept, 16–18.xi.1977, Cederholm, Daniellson, Hammarstedt, Hedqvist, Samuelsson (PJHS); 1♂,

Banjul, Senegambia Hotel, 20.i.1986, G.G.M. Schulten (PJHS); 1♀, outside Abuko Nature Reserve at waterworks, in and at Lamin stream [UTM 28PCK215812], 25–26.ii.1977, Cederholm, Daniellson, Hammarstedt, Hedqvist, Samuelsson (PJHS). **Kenya:** 1♀, Tsavo East National Park, near Athi River [2°37'S 38°22'E], sweep net, 10.vi.1998, R. Copeland (NMKE). **Malawi:** 1♂, Nyasaland, Cholo. [=Thyolo District], no date, R.C. Wood, det. as *C. ater* by Brunetti 1924 (NHML NHMUK010922067); 1♀, Nyasaland, Ruo Valley, 1000–2000 ft, 3.v.1916, R.C. Wood, det. as *C. ater* by Brunetti 1924 (NHML NHMUK010922072); 1♀, Nyasaland, Ruo Valley, 1000–2000 ft, 3.v.1916, R.C. Wood, det. as *C. ater* by Brunetti 1924 (NHML NHMUK010922074). **Namibia:** 1♂, Rundu, 19.i.1993, M. Schwarz (PMHA); 1♂, same, 22.i.1993; 1♀, Simanya Okavango River [17°33'17"S 18°32'33"E], 23–24.i.1998, A.H. Kirk-Spriggs, E. Marais (SMWN). **Nigeria:** 1♀, Say, 250 m, 10.x.1976, K. Guichard, det. as *C. ater* by Camras 1962 (NHML NHMUK010922071); 1♂, Say, 250 m, 10.x.1976, K. Guichard, det. as *C. ater* by Camras 1999 (NHML NHMUK010922069). **Senegal:** 1♂, 3 km N Tanaff, in and at pools and paddyfields ["UTM 28P"], swept, 7.iii.1977, Cederholm, Daniellson, Hammarstedt, Hedqvist, Samuelsson (PJHS). **South Africa:** *KwaZulu-Natal:* 2♂ 1♀, Maputaland, SW of Emanguzi [27°00'S 32°45'E], 29.i.2003, M. Snižek (PJHS). **Uganda:** 1♀, Lake Nabugabo [0°20'S 31°56'E], 17.iv.1973,



Figs 10, 11: *Conops ater* Macquart, 1844: (10) habitus, lateral view, ♂, Baku; (11) wing, dorsal view, ♂, Rundu.

D.J. Greathead, det. as *C. ater* by Camras 2000 (NHML NHMUK010922073). **Zambia:** 1♂, Zambesi Valley [16°18'S 30°16'E], 20.v–29.vii.1988, J. Weyrich (ZFMK). **Unknown country:** 1♂, “Kanzik” [possibly refers to Kanziku in Kenya, where Mac Athur collected in 1930s], v.1937, Mac Arthur, det. as *C. ater* by Camras 1962 (NHML NHMUK010922070); 1♂, “T493” (ZFMK).

Remarks: This is a very variable species typically comprising small black specimens, occasionally with large reddish individuals. The dusting stripe from midcoxa to notopleuron is usually indistinct dorsally but can be well developed. A few specimens that I have left unidentified and which might belong to this species do not have the typical wing pattern but have the radial cell r_{2+3} almost completely brown. I cannot exclude that *C. ater* may eventually need to be split into several taxa when more material becomes available or new characters are found.

Conops (Asiconops) atratus Camras, 1962

(Figs 12–15)

Holotype of *Conops atratus* Camras, 1962 (examined): ♀ bearing following labels: (1) “Holo- / type”; (2) “van Someren / Taveta For. / Kenya 8 47 . (S)”; (3) “Holotype ♀ / *Conops atratus* / Camras”; (4) “Common. / Inst.”; (5) “BMNH(E)# / 249016” (NHML).

Material examined: **Kenya:** 1♂, Naivasha, paratype of *C. atratus*, ix.1939, H.J.A. Turner (NHML NHMUK010922049). **Tanzania:** 1♀, Arusha, 25.x.1990, G.G.M. Schulten (RMNH). **Uganda:** 2♂, West Mengo District, Entebbe, 15–30.iv.1983, G.G.M. Schulten (RMNH); 1♂ 3♀, same, 18.iv.1983 (RMNH).

Conops (Asiconops) elegans Meigen, 1804

(Figs 16–20)

Conops elegans Meigen, 1804: 275.

Conops capensis Wiedemann, 1819: 14, **n. syn.**

Conops natalensis Macquart, 1846: 269, **n. syn.**

Conops fumipennis Adams, 1903: 43.

Conops bellus Adams, 1903: 44.

Conops semifumosus Adams, 1903: 44.

Conops pliuchus Speiser, 1909: 26.

Conops miuchus Speiser, 1909: 27.

Conops stylatus Kröber, 1915b: 56.

Conops nigrocoxalis Kröber, 1915b: 57.

Conops bequaerti Kröber, 1915b: 58.

Conops decipiens Kröber, 1933: 258, **n. syn.**

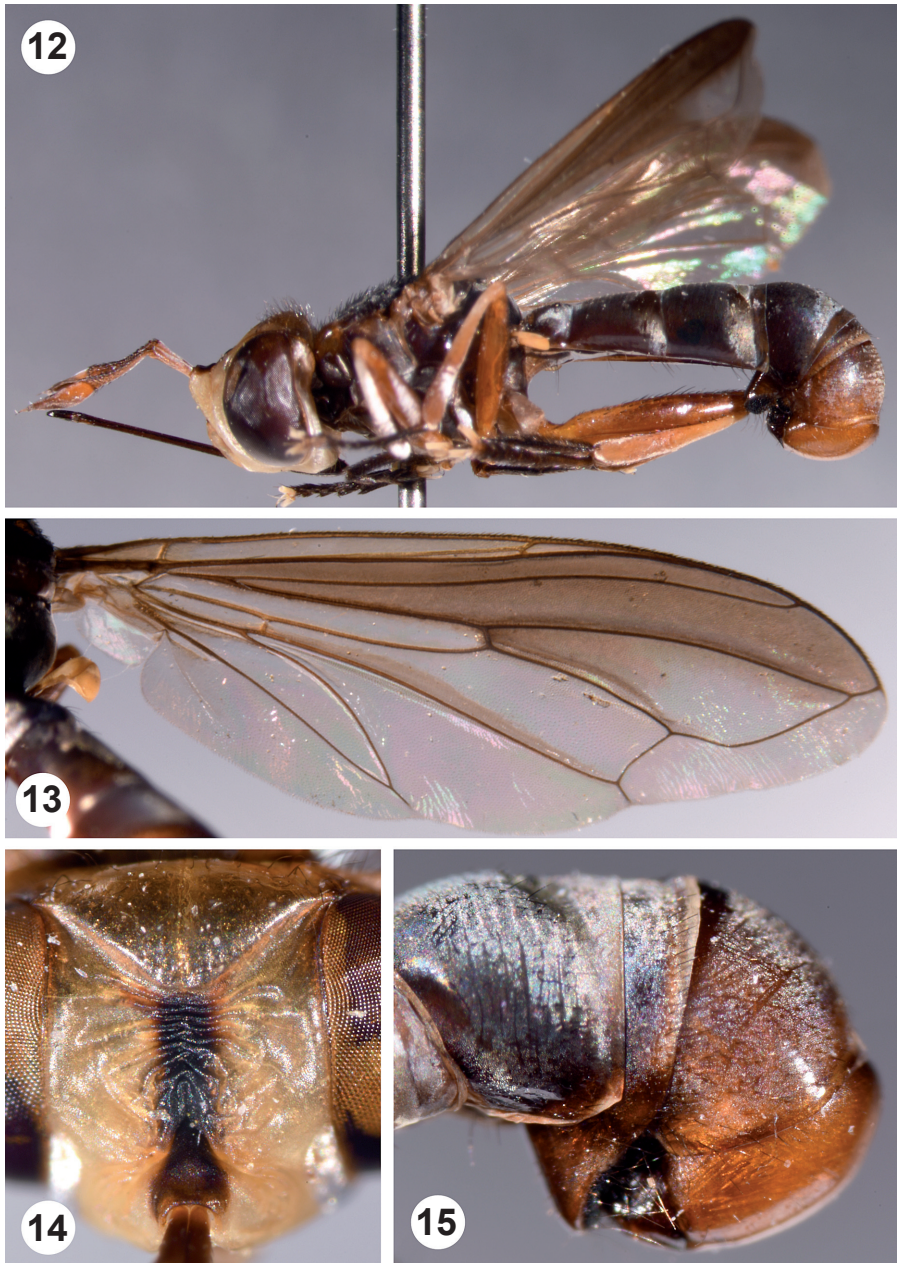
Conops aureocingulatus Séguy, 1939: 135.

Holotype of *Conops capensis* Wiedemann, 1819 (examined): ♀ bearing following labels: (1) “[blank red label]”; (2) “Cap. b. sp. / Coll. Winthem”; (3) “*capensis* / det Wied”; (4) “*capensis* Wid. / Cap b. sp.” (NMW).

Syntype of *Conops stylatus* Kröber, 1915 (examined): ♂ bearing following labels: (1) “7354”; (2) “Type”; (3) “*Conops stylatus* Krb. / O. Kröber det. 1914”; (4) “Sansibar / 6°s. Hildebr.”; (5) “*Conops elegans* / Stuke det. 2003” (ZMHB).

Syntypes of *Conops nigrocoxalis* Kröber, 1915 (all examined): 2♂ and 1 of unknown sex bearing following labels: (1) “Syn - / type”; (2) “Capland / Willowmore / 12 1911 / Dr. Brauns”; (3) “Brauns Coll. / 1912-44”; (4) “Syntype ♂ of / *Conops nigrocoxalis* / Kröber, 1915” (NHML).

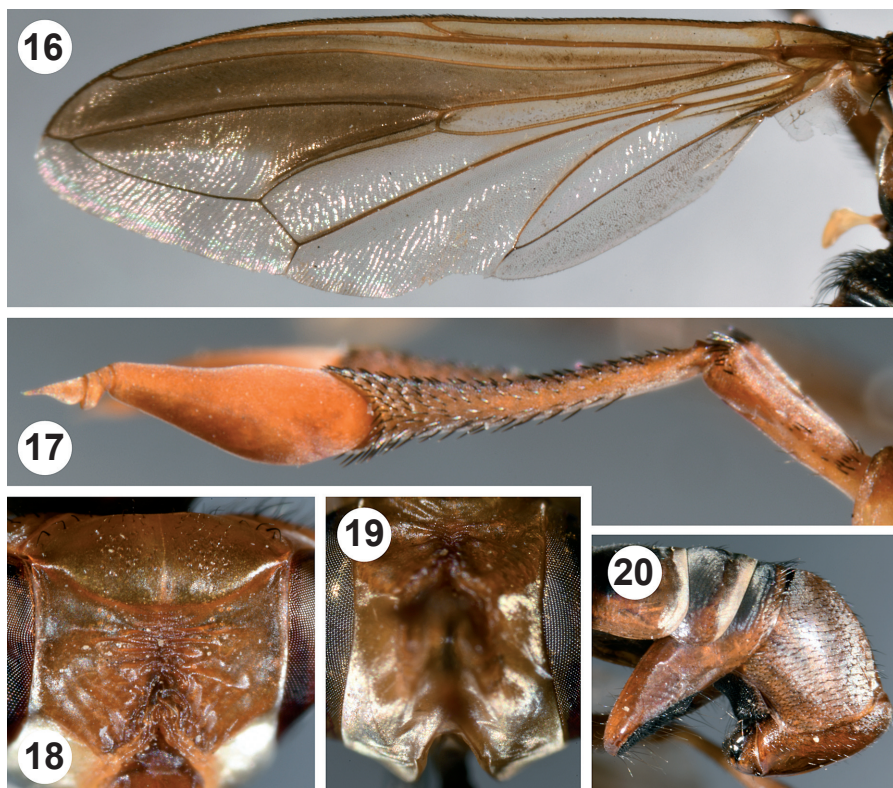
Holotype of *Conops decipiens* Kröber, 1933 (examined): ♂ bearing following labels: (1) “Holotype”; (2) “Type”; (3) “Bulawayo / S. Rhodesia / 6.4.1926 / R. H. R. Stevenson”; (3) “Press. by / Imp. Inst.



Figs 12–15: *Conops atratus* Camras, 1962: (12) habitus, lateral view, ♀, West Mengo; (13) wing, dorsal view, ♂, Entebbe; (14) frons, dorsal view, ♀, West Mengo; (15) ♀ theca, lateral view, ♀, West Mengo.

Ent. / Brit. Mus. /1932 – 143,”; (4) “*Conops* ♂ / *decipiens* Krb / det. Kröber 1931”; (5) “BMNH(E)# / 248978” (NHML).

Material examined: **Burundi:** 1♀, Colline Muhinga, Butezana, 1700 m, 11.v.1952, F.J. François (ISNB); 1♀, Colline Rumonge, Imbo, Terr de Bururi, 780 m, 7.iii.1953, F.J. François (ISNB); 1♀, Rumonge, 780 m, 19.ii.1949, F.J. François (ISNB); 1♀, same, 20.ii.1949; 3♂, same, 26.ii.1949; 1♀, Rumonge, 780 m, 26.ii.1949, F.J. François, det. as *C. elegans* var. *minutus* by Janssen 1955 (ISNB); 1♂, Rumonge, sable et broussailles près river du Lac Tanganyika, 790 m, 19–20.vi.1948, F.J. François (ISNB); 1♂, Rumonge, sable et broussailles près river du Lac Tanganyika, 790 m, 19–20.vi.1948, F.J. François, det. as *C. elegans* var. *fuscipennis* by Janssens 1955 (ISNB). **Democratic Republic of Congo:** 1♂ 1♀, Albertville [=Kalemi], 780 m, 21.ii.1951, F.J. François (ISNB); 1♂, Banana [6°00'S 12°20'E], ix.1915, Expedition Lang-Chapin (MRAC); 5♂, same, viii.1915; 1♂ 1♀, same, ix.1915; 1♂, Banana [6°00'S 12°20'E], viii.1915, Expedition Lang-Chapin, det. as *C. fuscipennis* by Curran (MRAC); 1♀, Banana [6°00'S 12°20'E], 9.vii.1915, Expedition Lang-Chapin (MRAC); 1♂, Banana [6°00'S 12°20'E], 6.viii.1915, Expedition Lang-Chapin, det. as *C. bequaerti* by Curran (MRAC); 1♂, Banana [6°00'S 12°20'E], 14.viii.1915, Expedition Lang-Chapin (MRAC); 1♂, Banana [6°00'S 12°20'E], 6.viii.1920, H. Schouteden, det. as *C. stylatus* by Kröber 1935 (MRAC); 1♂, Eala, 8.xi.1932, A. Corbisier, det. as *C. elegans* by Camras 1962 (MRAC); 1♂, Kasenyi [1°24'N 30°26'E], 15.v.1935, H.J. Brédo, det. as *C. elegans* by Camras 1962 (MRAC); 2♂ 1♀, Kivu, Uvira, 16–23.iii.1953, P. Basilewsky, det. as



Figs 16–20: *Conops elegans* Meigen, 1804: (16) wing, dorsal view, ♀, Morgan Bay; (17) antenna, lateral view, ♀, Fannies Island; (18) frons, dorsal view, ♀, Morgan Bay; (19) face, anterior view, ♀, Fannies Island; (20) theca, lateral view, ♀, Morgan Bay.

C. elegans by Camras 1962 (MRAC); 1♂, Lomami, Luputa, iii.1935, Bouvier, det. as *C. elegans* by Camras 1962 (MRAC); 1♂, Lulua, Kapanga, v.1933, G.F. Overlaet, det. as *C. elegans* by Camras 1962 (MRAC); 1♂, Ubangi, Bosobolo, 8–11.i.1932, H.J. Brédo, det. as *C. elegans* by Camras 1962 (MRAC). **Ethiopia:** 1♀, 20 km SE Konsa [05°15'N 37°32'E], 850 m, 11–13.v.2005, J. Halada (CULSP); 1♂, Oromia, Senkeke National Park [7°09'N 38°17'E], 2103 m, 17.ix.2012, A. Pauly (ISNB); 1♂, Oromia, Senkeke National Park, 2011 m [7°11'52"N 38°16'20"E], *Ocimum urticifolium*, 17.ix.2012, A. Pauly (ISNB). **Kenya:** 1♂ 2♀, Shirati, iii.1909, K. Katona, det. as *C. elegans* by Camras 1999 (ZMHB); 1♂, Tsavo East National Park, near Athi River [2°37'S 38°22'E], sweep net, 10.vi.1998, R. Copeland (NMKE); 1♂, Coast Province, Congoni Forest [4°24.23'S 39°28.21'E], sweep net, 20.vii.1999, R. Copeland (NMKE); 1♀, Rift Valley Province, Nguruman, gallery forest [1°50.07'S 36°04.97'E], Malaise trap, 6–8.x.1998, R. Copeland (NMKE); 1♂, Rift Valley Province, Nguruman, Oloibortoto River, irrigation scheme [1°48'S 36°04'E], Malaise trap, 19–22.iv.1999, R. Copeland (NMKE); 1♀, Rift Valley Province, Nguruman, Oloibortoto, irrigation scheme S Pukare Farm, Malaise trap, 25.iii.1999, R. Copeland (NMKE). **Lesotho:** 1♂, Mamathes, 25.xii.1947, C. Jacot-Guillarmod (AMGS); 2♀, same, 27.xii.1947; 1♂, same, 10.xii.1950; 1♂, same, 24.xii.1950; 1♂ 1♀, same, 25.ii.1951; 1♂, same, 3.iii.1951; 1♂, same, 3.ii.1952; 1♂, same, 10.iii.1952; 1♂, same, 12.iii.1952; 1♀, same, 22.xii.1954; 1♂, same, 28.xii.1959; 1♀, Leribe District, Khabos, i.1932, C. Jacot-Guillarmod (AMGS). **Mozambique:** 1♂, Manica Province, 65 km W Chimoio, 10.xi.2003, J. Halada (CULSP). **Namibia:** 2♂, 18 km W 1237/C26 junction [23.09°S 16.42°E], visiting deep pink flowers of *Hermbsstaedtia*, 11.iii.1999, F.W. Gess, S.K. Gess (AMGS); 1♂, 22 km N Kalkrand [23.55°S 17.28°E], visiting yellow flowers *Geigeria pectidiae* (DC.) Harv., 3.iv.2004, F.W. Gess, S.K. Gess (AMGS); 1♀, 30 km S of Omaruru, visiting deep pink flowers of *Hermbsstaedtia odorata* (Burch.) T. Cooke, 1.iv.1998, F.W. Gess, S.K. Gess (AMGS); 1♂, between Omaruru and Wilhelmstal [21.31°S 16.03°E], visiting deep pink flowers *Hermbsstaedtia odorata* (Burch.) T. Cooke, 3.iv.1998, F.W. Gess, S.K. Gess (AMGS); 1♀, "D.SW.Afrika", 1901, S.V. Lübbert (ZMHB); 1♂ 1♀, Karasburg, on D201 from M26 [27.09°S 19.01°E], visiting white flowers of Nyctaginaceae, 5.iii.2000, F.W. Gess, S.K. Gess (AMGS); 1♂, Karasburg [28.00°S 18.45°E], on cream flowers of *Asclepias buchenaviana* Schinz, 13.iii.1997, F.W. Gess, S.K. Gess (AMGS); 1♂, Kaudom Game Reserve, Kaudom Camp [13°30'S 20°44'E], 22–25.ii.1992, E. Marais, M. Pusch (SMWN); 1♂, N Kalkveld on road to Otjiwarongo [20.50°S 16.30°E], visiting deep pink flowers of *Hermbsstaedtia*, 25.iii.1997, F.W. Gess, S.K. Gess (AMGS); 1♀, near Aus on road to Helmeringhausen [26.37°S 19.20°E], visiting white flowers of *Psilocaulon glareosum* (Berger) Dinter & Schwantes, 15.iii.1997, F.W. Gess, S.K. Gess (AMGS); 1♀, Otjikoko-Sud 61, Omaruru, SE 2116Ad, 10–13.ii.1972, collector unknown (SMWN); 1♂, Rundu, 29.i.1993, M. Schwarz (PMHA); 1♂, West Caprivi Park, Kwando River [17°43'S 23°21'E], 8.iv.1990, E. Marais (SMWN); 1♀, Harda Province, 15 km S Rehobot [23°28'S 17°07'E], 1400 m, 20.iii.2014, J. Halada (CULSP); 3♂, Namibia central, S Okasewa [22°34'53"S 18°11'15"E], 1550 m, 12–17.ii.2010, J. Oehlke (PASS); 1♀, same, 19.iii.1950. **South Africa:** *Limpopo:* 1♂, 20 km N Thabazimbi [24°25'S 27°24'E], 23.iii.1957, J. Oehlke, R. Oehlke (SDEL); *Gauteng:* 1♂, Pretoria, Capital Park, 3.i.1965, H.N. Empey (PMHA); *Free State:* 1♂, Sandveld Nature Reserve, Hoopstad, SE2725Da, 8–12.ii.1982, Entomology Department (BMSA); *Western Cape:* 1♂, 43 km ENE of Ceres on road to Sutherland, on flowers of *Athanasia* sp., 2–3.xii.1982, F.W. Gess, S.K. Gess (AMGS); 1♂, same, on flowers of *Wiborgia* sp. (AMGS); 1♀, Ouberg Pass by road 27 km NE Montagu [33°40'00"S 20°16'25"E], 3.xii.1986, R.W. Gess (AMGS); *Northern Cape:* 1♀, Vanwyksfontein [30°39'S 25°22'E], 8 km W Norvalspont, 1–9.xii.1988, R.W. Gess (AMGS); 1♀, same but on flowering *Acacia karroo*, 16.i.1985, R.W. Gess (AMGS); *Eastern Cape:* 1♀, Grahamstown [33°18'S 26°31'E], 14.ii.1953, W.H. Potts, det. as *C. capensis* by Smith 1957 (NHML NHMUK010922061); 1♀, Grahamstown, Hilton [20 km on R350 N Grahamstown], Malaise trap, 12–16.xi.1975, F.W. Gess (AMGS); 1♂, Grahamstown, Hilton, on flowers of *Phyllopodium cuneifolium*, 9.iii.1978, F.W. Gess (AMGS); 1♀, Grahamstown, 15.x.2007, M.C. Parkinson (AMGS); 2♀, Willowmore, no date, H. Brauns, det. as *C. nigrocoxalis* (MRAC); 1♀, Morgan Bay, coastal bush, hind dune, 30.iii–4.iv.1989, F.W. Gess, S.K. Gess (AMGS); *KwaZulu-Natal:* 1♀, Ladysmith [28°33'S 29°47'E], i.1947, Finn. (AMGS); 1♂, Ndumo Game Reserve, main camp area [26°54.652'S 32°19.719'E], MV & black light trap, broad leaved deciduous woodland, 26.xi–11.xii.2009, Kirk-Spriggs, Haddad, Swart (BMSA); 1♀, Fannies Island [28°06'S 32°27'E], parkland, heath, 12–18.iii.1985, A. Weaving (AMGS). **Tanzania:** 1♀, Kigoma, 800 m, det. as *C. capensis* by Janssens 1954, 19.iii.1950, F.J. François (ISNB); 1♂, Nyasasee [Lake Nyasa], Langenburg [=Tukuyu], 3.ix–3.x.1898, S. Fülleborn (ZMHB); 1♂, same, 3.x–4.xi.1898; 1♂, same, 26.vii–8.viii.1898; 1♂, same, end of iii. to beginning of iv. 1898; 1♀, same, 20.viii–1.ix.1898; 1♀, same, 1–26.vii.1898; 1♀, Nyasasee [Lake Nyasa], Wiedhafen [=Manda], 26.i–3.iii.1899, S. Fülleborn (ZMHB).

Remarks: As pointed out by several previous authors, and as should be obvious from the long list of synonyms, *C. elegans* is a very variable species. Variation is found in size, in the colouration of the antennae (from quite orange-brown to almost completely dark brown), colouration of thorax and abdomen (from almost completely orange to almost completely black), and in the wing markings (from completely black wings to mainly hyaline wings). *Conops elegans* is, however, easily recognised by the completely dusted face and the lack of frontofacial spots.

The holotype of *C. capensis* fits completely *C. elegans*. *Conops capensis* Wiedemann, 1819—the first conopid ever described from the Afrotropical Region—is therefore a junior synonym of *Conops elegans* Meigen, 1804 (n. syn.). There is no conopid specimen collected in the Afrotropics that has had such a long and well documented history as the holotype of *Conops capensis*. Concerning the original description, the specimen was collected by the merchant Bernt Wilhelm Westermann (1781–1868) who lived from December 1816 to February 1818 in the Cape. In 1818, he reached Copenhagen together with first Conopidae collected in the Afrotropical Region (Pont 1996). Christian Rudolph Wilhelm Wiedemann (1770–1840) was a professor in Kiel at that time and received the type from Westermann, with whom he had intensive contact. He described the new species immediately in his own journal in 1819. After Wiedemann died in 1840 his Diptera collection was sold to the merchant Wilhelm von Winthem (1799–1847) and at least since that time the holotype of *C. capensis* was stored in Hamburg. Wilhelm von Winthem died in 1847 and his impoverished widow had to sell his collection. Professor Kollar took the opportunity, travelled to Hamburg and bought the Diptera Collection for the Natural History Museum in Vienna. Here the type has been hosted since about 1850. The Hamburg dipterist Otto Kröber reviewed the Afrotropical Conopidae and redescribed the holotype of *C. capensis* (Kröber 1915*b*). Because Kröber never made long journeys it is very probably that the specimen was in fact sent to him, and therefore reached Hamburg for a second time. In about the year 2000 the American dipterist Sidney Camras visited the Museum in Vienna and examined the type again.

Conops natalensis was described from a single male from “D’Arfique, Port-Natal”; this is the only *Conops* species Macquart described from the Afrotropical Region. The type of the species is lost and the species itself has afterwards only ever been listed in the catalogues of Kröber (1917, 1931) and Smith (1980). The short original description comprises all that is known about *C. natalensis*. and it fits completely with *Conops elegans*, one of the most common Conopinae in South Africa. *Conops natalensis* Macquart, 1846 should therefore be treated as a junior synonym of *Conops elegans* Meigen, 1804 (n. syn.).

The holotype of *C. decipiens* Kröber, 1933 also fits completely the concept of *C. elegans* and therefore also has to be placed as a junior synonym of *Conops elegans* Meigen, 1804 (n. syn.).

Conops (Asiconops) nubeculipennis Bezzi, 1901

(Figs 21–23)

Conops nubeculipennis Bezzi, 1901: 21.*Conops fenestralis* Camras, 1962: 215, n. syn.

Holotype of *Conops fenestralis* Camras, 1962 (examined): ♀ bearing following labels: (1) “Holotypus / ♀”; (2) “Coll. Mus. Congo / Lualaba : Kabongo / 15-XI-1952 / Ch. Seydel”; (3) “Holotype ♀ / *Conops* / *fenestralis* / Camras”; (4) “RMCA ENT / 000012169” (MRAC).



Figs 21–23: *Conops nubeculipennis* Bezzi, 1901, ♂, Nguruman: (21) habitus, dorsolateral view; (22) wing, dorsal view; (23) ♂ abdomen, dorsal view.

Material examined: **Benin:** 1♂, Ahozon, forest area [6°22'57.59"N 2°09'15.92"E], iv.2008, G. Goergen (IITA); 1♂, Calavi, sweep netting campus, 9.xii.2013, G. Goergen (IITA). **Cameroon:** 1♂, Duala, xii.1904, M. von Stefenelli (SMTD). **Central African Republic:** 1♀, Uamgebiet, Bosum [probably Bozoum; 6°19'N 16°22'E], 18.vi.1914, G. Tessmann, det. as *C. nubeculipennis* by Kröber (ZMHB). **Eritrea:** 1♀, "Aiaet" [possibly misspelt Ayet; 14°57'N 39°42'E], 7.ii.1857, H. Swale, det. as *C. nubeculipennis* by Camras 2000 (NHML NHMUK013644275). **Ethiopia:** 1♀, SNNPR Turmi [4°58'N 36°31'E], 840 m, 9–11.iv.2016, J. Halada (CULSP). **Kenya:** 1♂, Nguruman, agriculture area [1°47.23'S 36°04.12'E], 6–8.x.1998, R. Copeland (NMKE); 2♀, Rift Valley Province, Samburu National Reserve near Ewaso Ng'iro River [0.56797°N 37.53563°E], 874 m, 12–26.vi.2008, R. Copeland (NMKE); 1♀, Rift Valley Province, Samburu National Reserve near Ewaso Ng'iro River [0.56797°N 37.53563°E], 874 m, riverine forest next to headquarter, Malaise trap, 24.vii–7.viii.2007, R. Copeland (NMKE). **Sudan:** 1♂, Kartoum, 21.v.1921, R. Cottam, det. as *C. nubeculipennis* by Kröber 1930 (NHML NHMUK013644273). **Togo:** 1♂, Agbodrafo, Lac du Togo, 10.xi.1990, G.G.M. Schulten (RMNH). **Unknown country:** 1♂, [symbols illegible], 2.viii.1910, H. Swale, det. as *C. nubeculipennis* by Bezzi 1924 (NHML NHMUK013644274).

Remarks: The specimens reported here fit the material I have seen from North Africa and the Arabian Peninsula. There is obvious intraspecific variation concerning the colouration of head, thorax, abdomen and wing, and also the amount of dusting. Extremely dark female specimens can have an almost completely black scutum, black mediotergite, almost completely black abdomen, a distinct black stripe on the frons reaching from the antennae to the vertex and an obvious black spot on the facial keel. Some of the specimens I could not identify of the *ater*-group may also eventually turn out to be synonyms of *Conops nubeculipennis*.

The female holotype of *Conops fenestralis* fits completely *C. nubeculipennis*, and therefore *Conops fenestralis* Camras, 1962 is considered as a synonym of *Conops nubeculipennis* Bezzi, 1901 (n. syn.).

The only character that distinguishes *C. nubeculipennis* and *C. ferruginosus* Kröber, 1915 is the presence or absence of frontofacial spots. The size of the frontofacial spot varies in the material of *C. ferruginosus* that I have seen, and I cannot exclude that this character will eventually turn out to be variable too, thus undermining the present species-group arrangement and possibly necessitating further synonymies.

Conops (Asiconops) simulans Camras, 1962

Holotype of *Conops simulans* Camras, 1962 (examined): ♀ bearing following labels: (1) "Holo- / type"; (2) "H.A.J. Turner / Naivasha. 2-40."; (3) "Holotype ♀ / *Conops / simulans / Camras*"; (4) "Common. / Inst."; (5) "BMNH(E)# / 249020" (NHML).

Key 6: Afrotropical species of *Conops (Asiconops) ater* species-group.

- 1 Face and gena completely dusted (Fig. 19); head completely orange-brown (Fig. 18); no distinct dusting stripe on pleura from middle coxa to notopleuron; costa and subcosta usually light orange-brown, distinctly contrasting with dark brown radial veins (Fig. 16), forms with completely dark wings can also occur; dark brown colouration of the wing usually reaching from wing base to the tip but may be restricted to a small band between radial vein R₁ and media M (Fig. 16); scutum at least black medially, may be completely black; legs orange-brown with black contrasting tibiae; theca long (Fig. 20); ♂ abdomen broad, tergite 2

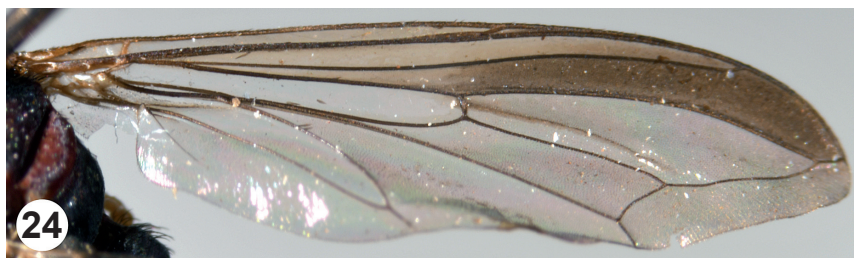
- more than half as wide as maximum width of tergite 4
 *C. elegans* Meigen, 1804
- Antennal grooves and parafacia dusted, remaining face and gena not dusted and therefore obviously contrasting; frons usually with black markings; more or less distinct dusting stripe from middle coxa to notopleuron; other characters variable 2
- 2 Thorax and abdomen reddish brown (Figs 21, 23), scutum often with a more or less extended central black spot that can exceptionally reach lateral margins but not scutellum, mediotergite may be black, female abdomen may be largely black; hind tarsi orange-brown, obviously paler than black fore and middle tarsi; labium orange brown; wing as in Fig. 22: radial cells r_1 and r_{2+3} becoming obviously darker apically, radial cell r_{4+5} usually distinctly darker before vena spuria than behind vena spuria; anterior half of anepisternum only slightly dusted and therefore dusting stripe distinctly reaching up to notopleuron; tergite 4 at least with narrowly dusted hind margin, dusting becomes narrower laterally; ♂ abdomen broad, tergite 2 at apex slightly more than half as wide than maximum width of tergite 4 (Fig. 23); large species, wing length >7 mm
 *C. nubeculipennis* Bezzi, 1901
- Thorax and abdomen mainly black, black colour on scutum always reaching to scutellum; hind tarsi as black or dark brown, as fore- and middle tarsi; labium black to dark brown; wing colouration different; tergite 4 without dusted hind margin or dusting at hind margin broader laterally; ♂ abdomen narrow, tergite 2 less than half of maximum width of tergite 4; usually smaller species, wing length <7 mm 3
- 3 Wing as in Fig. 11: radial cells r_1 and r_{2+3} only dark apically, basally as hyaline as basal radial cell; scutellum and postpronotum usually black to dark brown; anepisternum and anepimeron usually distinctly dusted and therefore any dusting stripe to notopleuron indistinct in most specimens; tergite 4 without any distinct dusting at hind margin *C. ater* Macquart, 1843
- Radial cells r_1 and r_{2+3} completely dark (Fig. 13); scutellum and postpronotum orange-brown; anepisternum and anepimeron mainly shining and therefore dusting stripe to notopleuron distinct; tergite 4 at least laterally with distinctly dusted hind margin 4
- 4 Black central stripe on frons reaching vertex (Fig. 14); ♀ theca narrower: distinctly narrower than maximum width of tergite 6 (Fig. 15); field of black setae on theca about as wide as high; smaller species, wing length up to 7 mm
 *C. atratus* Camras, 1962
- Black central stripe on frons not reaching vertex, almost with only lunula black; ♀ theca broader: distinctly broader than maximum width of tergite 6; field of black setae on theca wider than high; larger species, wing length of holotype about 8 mm *C. simulans* Camras, 1962

Conops (Asiconops) braunsii species-group*Conops (Asiconops) apicalis* Kröber, 1915

(Figs 24–27)

Conops apicalis Kröber, 1915b: 44.*Conops unifascipennis* Brunetti, 1925: 108.

Holotype of *Conops unifascipennis* Brunetti, 1925 (examined): ♂ bearing following labels: (1) “Holo- / type”; (2) “G. A H. Bedford / Pretoria / 29.XI-1914. / “; (3) “Pres. by / Imp. Bur. Ent. / Brit. Mus. / 1924-306.”; (4) “*Conops / unifasci- / pennis / Brun. Type ♂ / Det. E. Brunetti 1924*”; (5) “BMNH(E)# / 249012” (NHML).



Figs 24–27: *Conops apicalis* Kröber, 1915, ♂, Tsavo East NP: (24) wing, dorsal view; (25) arista, lateral view; (26) head, anterolateral view; (27) frons, dorsal view.

Material examined: **Ethiopia:** 1♀, 60 km SSW Negele [5°32'N 39°26'E], 1480 m, 10–11.xi.2003, J. Halada (CULSP). **Kenya:** 1♀, Tsavo East National Park, near Athi River [2°37'S 38°22'E], sweep net, 10.vi.1998, R. Copeland (NMKE). **Mozambique:** 1♀, Manica Province, 65 km W Chimoio, 10–11.xi.2003, J. Halada (PJHS). **Namibia:** 1♀, 40 km W Witvlei, 16.ii.1990, M. Schwarz (PMHA); 1♀, Okahandja, 1–12.i.1928, R.E. Turner, det. as *C. apicalis* by Kröber 1938 (NHML NHMUK010922043); 1♀, Otjinene District, Epukiro River, 3 km N [21°22'26"S 20°06'09"E], 9–11.ii.2001, A.H. Kirk-Spriggs, E. Marais (SMWN). **South Africa:** *KwaZulu-Natal:* 1♀, Weenen [28°50'S 30°05'E], ii.1926, H.P. Thomasset, det. as *C. apicalis* by Kröber 1938 (NHML NHMUK010922042).

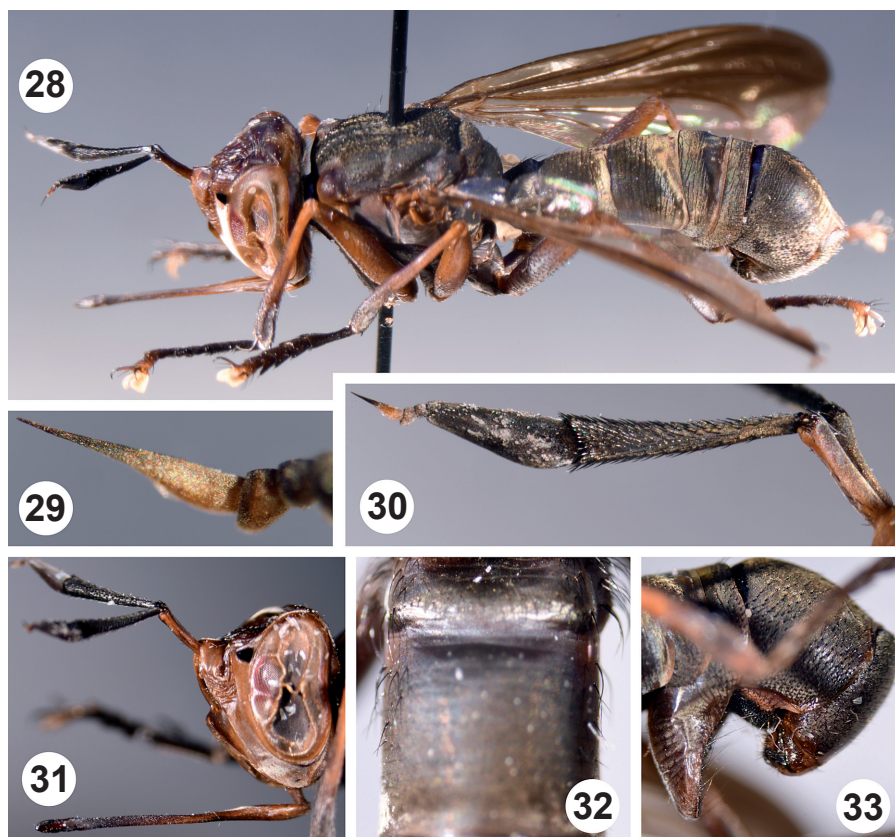
Conops (Asiconops) argentispatum Brunetti, 1929

(Figs 28–33)

Conops argentispatum Brunetti, 1929: 17.

Conops nigeriensis Camras, 1962: 211, **n. syn.**

Conops congoensis Camras, 1962: 217, **n. syn.**



Figs 28–33: *Conops argentispatum* Brunetti, 1929, ♀, W Katunguru: (28) habitus, dorsolateral view; (29) arista, lateral view; (30) antenna, lateral view; (31) head, anterolateral view; (32) tergite 2, dorsal view; (33) theca, lateral view.

Holotype of *Conops argentispantium* Brunetti, 1929 (examined): ♂ bearing following labels: (1) “Holotype”; (2) “Entebbe / Uganda / 29.v.1912 / 4045.C.C. Gowdey”; (3) “Pres. by / Imp. Bur. Ent. / Brit. Mus. / 1929—48.”; (4) “*C. argenti - / spatium* / W Typ ♂”; (5) “BMNH(E)# / 248981” (NHML).

Material examined: Democratic Republic of Congo: 1♂ [allotype of *C. congoensis* Camras], Bambesa, ii.1934, H.J. Brédo (MRAC). **Uganda:** 1♀, W Katunguru, in front of Lake Nabugabo, meadow [0°21'07.5"S 31°52'41.0"E], 1000 m, 29.iii.2012, J. Oehlke (PASS).

Remarks: Contrary to the information given in Stuke (2017) the female holotype of *C. congoensis* is in fact deposited in the Cornell University Insect Collection (Cornell University, Ithaca, USA), as described by Camras (1962). The original description and the paratype of *C. congoensis* fit the concept of *C. argentispantium* and therefore *C. congoensis* Camras, 1962 is placed as a junior synonym of *C. argentispantium* Brunetti, 1929 (n. syn.).

There is no obvious difference between the original description of *C. nigeriensis* and the material of *C. argentispantium*. Camras (1962) compares *C. nigeriensis* only with *C. simplex* and did not even mention the similarity of *C. nigeriensis* with *C. congoensis* or *C. argentispantium*. I therefore propose to treat *Conops nigeriensis* Camras, 1962 as a junior synonym of *C. argentispantium* Brunetti, 1929 (n. syn.).

Conops (Asiconops) aureomicans Kröber, 1933

(Figs 34–37)

Holotype of *Conops aureomicans* Kröber, 1933 (examined): ♀ bearing following labels: (1) “Holo- / type”; (2) “Type”; (3) “Dr. EN van Someren / Kibwezi W. F. / Dec. 1929”; (4) “Pres. by / Imp. Bur. Ent. / Brit. Mus. 1931-480.”; (5) “*Conops* ♀ / *aureomicans* / Krb / det. Kröber 1931”; (6) “BMNH(E)# / 249018” (NHML).

Material examined: Namibia: 1♂, 50 km E Outjo [20°02'16"S 15°40'50"E], 1360 m, 18–24.ii.2010, J. Oehlke (PASS); 3♂, Namibia central, S Okasewa [22°34'53"S 18°11'15"E], 1550 m, 12–17.ii.2010, J. Oehlke (PASS). **South Africa:** *Gauteng:* 1♂, Pretoria, 31.xii.1914, G.A.H. Bedford, det. as *C. braunsii* by Brunetti 1924 (NHML NHMUK010922052). **Tanzania:** 1♂, Njombe, 6000–7000 ft, 16.iii.1952, W. Peters (NHML). **Zimbabwe:** 1♂, Bulawayo, 3.ii.1923, collector unknown (NHML); 1♀, Salisbury [=Harare; 17.84°S 31.05°E], ii.1900, G.A.K. Marshall, det. as *C. braunsii* by Brunetti 1924 (NHML NHMUK010922053); 1♂, Matabeleland, Matobo Hills, iv.1932, J. Ogilvie, det. as *C. aureomicans* by Camras 1999 (NHML NHMUK010922050).

Remarks: The specimens from Namibia are obviously paler than the two other specimens reported here, having a completely orange abdomen and only small black markings on scutum. I am, however, convinced that this is merely intraspecific variation.

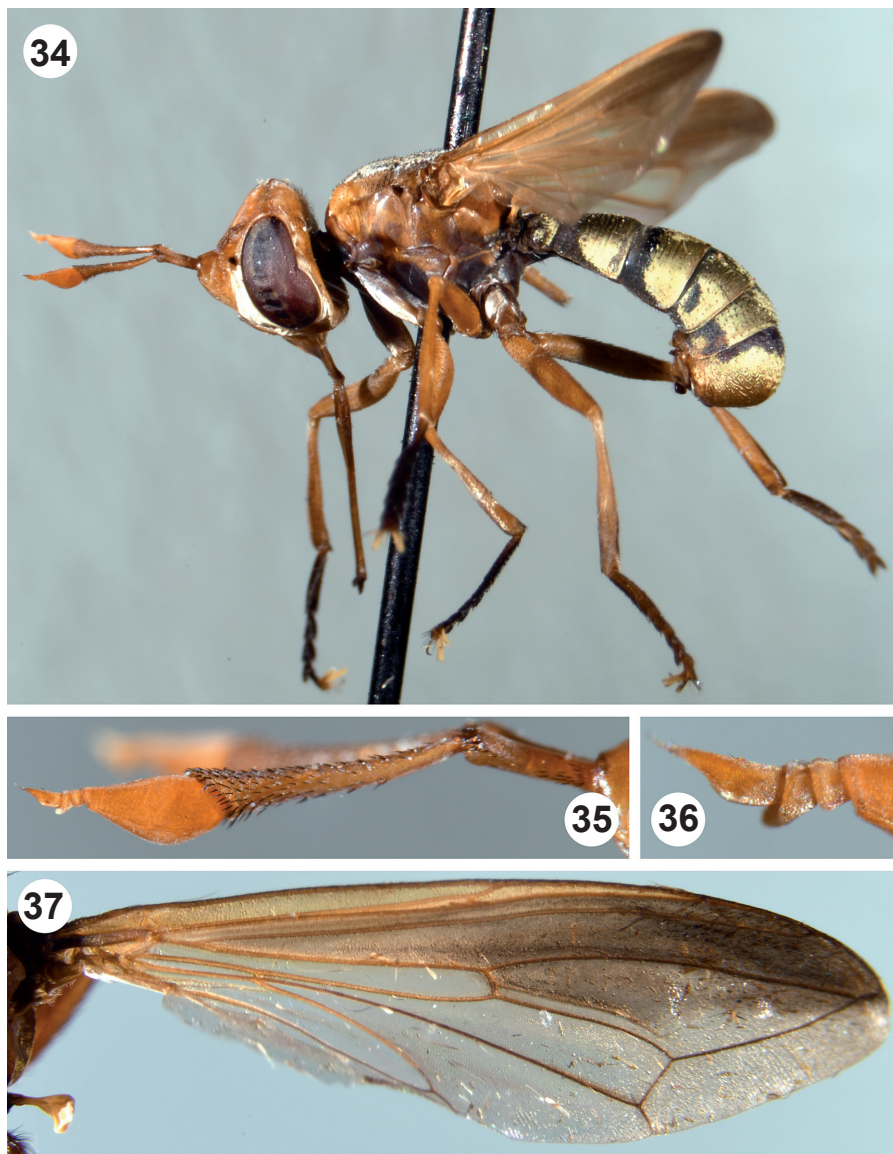
Conops (Asiconops) bilineatus Camras, 2000

(Figs 38–40)

Material examined: Mozambique: 1♀, Manica Province, 35 km SW Chimoio [19°08'S 33°09'E], 700 m, 14.xii.2005, J. Halada (CULSP).

Remarks: The specimen reported here fits perfectly the original description, although Camras (2000) did not mention the striking character of the vertex; in fact,

he did not describe the vertex at all. This omission may be explained by a comment Sid Camras once made in a private conversation with me, in which he confided that he did not publish everything that he knows.



Figs 34–37: *Conops aureomicans* Kröber, 1933: (34) habitus, lateral view, ♂, Njormbe; (35) antenna, lateral view, ♂, Njormbe; (36) arista, lateral view, ♂, Njormbe; (37) wing, dorsal view, ♀, S Okasewa.



Figs 38–40: *Conops bilineatus* Camras, 2000, ♀, SW Chimoio: (38) frons, dorsal view; (39) antenna, lateral view; (40) arista, lateral view.

Conops (Asiconops) braunsii Kröber, 1915

(Figs 41–45)

Conops braunsii Kröber, 1915b: 44.

Conops castaneus Brunetti, 1925: 104, n. syn.

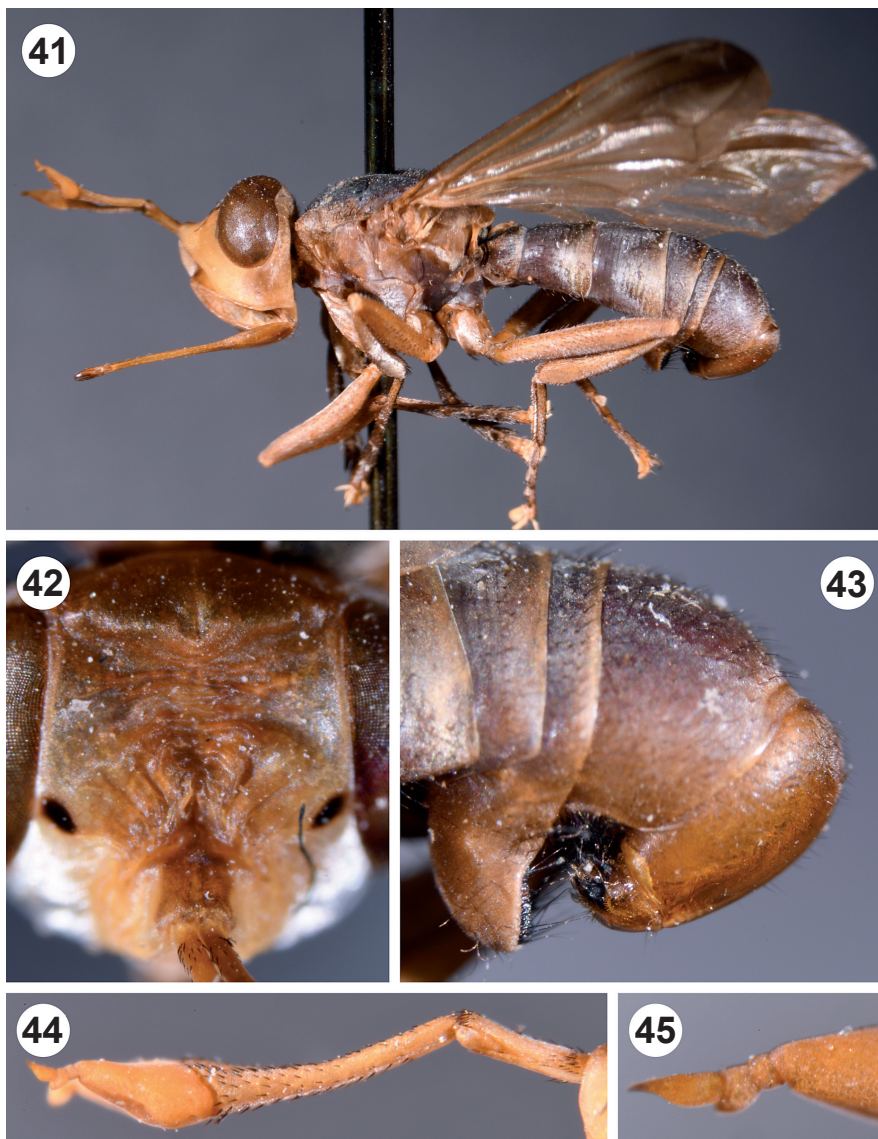
Holotype of *Conops braunsii* Kröber, 1915 (examined): ♀ bearing following labels: (1) “Ost-Afrika / Lindi / Fülleborn S.”; (2) “Type”; (3) “*Conops* ♀ / *braunsii* Kröb. / O. Kröber det. 1914”; (4) “Zool. Mus. / Berlin” (ZMHB).

Lectotype of *Conops castaneus* Brunetti, 1925 (examined), herewith designated: ♀ bearing following labels: (1) “Syntype”; (2) “Mt. Mlanje, / Nyassaland / 7.XII.1912. / S.A. Neave.”; (3) “Press. By. / Imp. Bur. Ent. / Brit. Mus. / 1924-306.”; (4) “*Conops* / *castaneus* / Brun Type ♀ / Det. E. Brunetti 1924”; (5) “Lectotypus / *Conops castaneus* ♀ / Brunetti, 1925 / des. Stuke 2019” (NHML).

Material examined: **Malawi:** 1♀, Nyasaland, Limbe, ix.1916, R.C. Wood, des. as syntype of *C. castaneus*, det. as *C. braunsii* by Camras 1999 (NHML NHMUK010922054); 1♀, Nyasaland, Mlanje [=Mulanje], 26.ii.1913, S.A. Neave, des. as syntype of *C. castaneus*, det. as *C. simplex* by Camras 1962 (NHML NHMUK013644299); 1♀, Nyasaland, Mlanje [=Mulanje], 27.ii.1913, S.A. Neave, des. as cotype of *C. castaneus*, det. as *C. simplex* by Camras 1999 (NHML NHMUK013644297); 1♀, Nyasaland, Mlanje [=Mulanje], 7.iii.1913, S.A. Neave, des. as syntype of *C. castaneus* (NHML NHMUK013644301); 1♀, Nyasaland, Mlanje [=Mulanje], 7.iii.1913, S.A. Neave, des. as syntype of *C. castaneus*, det. as *C. simplex* by Camras 1999 (NHML NHMUK013644300); 1♀, Nyasaland, Mlanje [=Mulanje], 19.iii.1913, S.A. Neave, des. as syntype of *C. castaneus*, det. as *C. simplex* by Camras 1999 (NHML NHMUK013644302); 1♀, Nyasaland, Ruo Valley, 1000–2000 ft, 4.iii.1913, S.A. Neave, des. as syntype of *C. castaneus* (NHML NHMUK013644303); 1♀, Nyasaland, Ruo Valley, 1000–2000 ft, 5.iii.1913, S.A. Neave, des. as syntype of *C. castaneus* (NHML NHMUK013644298). **Zimbabwe:** 1♂, Salisbury [=Harare; 17.84°S 31.05°E], ii.1948, P. Miles (BMSA).

Remarks: The original description of *C. castaneus* was based on 3♂ and 9♀ specimens which have to be treated as syntypes. However, Camras (1962, 2001) pointed out that the type material consists of more than one species. My examination found three of the specimens are of *C. ferruginosus* and eight are *C. braunsii*. Therefore it is necessary to fix a lectotype to clarify the status of the species known as *castaneus*. The specimen I have selected is one of the *braunsii* specimens from the type series of *C. castaneus*, which has now been labelled as the “Type” of *castaneus*. This is in

contrast to all of the other specimens which are labelled “Cotype” with the exception of one specimen of *C. ferruginosus* which is also labelled “Type”. The lectotype is conspecific with *C. braunsii* and therefore *Conops castaneus* Brunetti, 1925 is placed as a junior synonym of *Conops braunsii* Kröber, 1915 (n. syn.).



Figs 41–45: *Conops braunsi* Kröber, 1915, holotype: (41) habitus, lateral view; (42) frons, dorsal view; (43) theca, lateral view; (44) antenna, lateral view; (45) arista, lateral view.

Conops (Asiconops) rugifrons Karsch, 1888

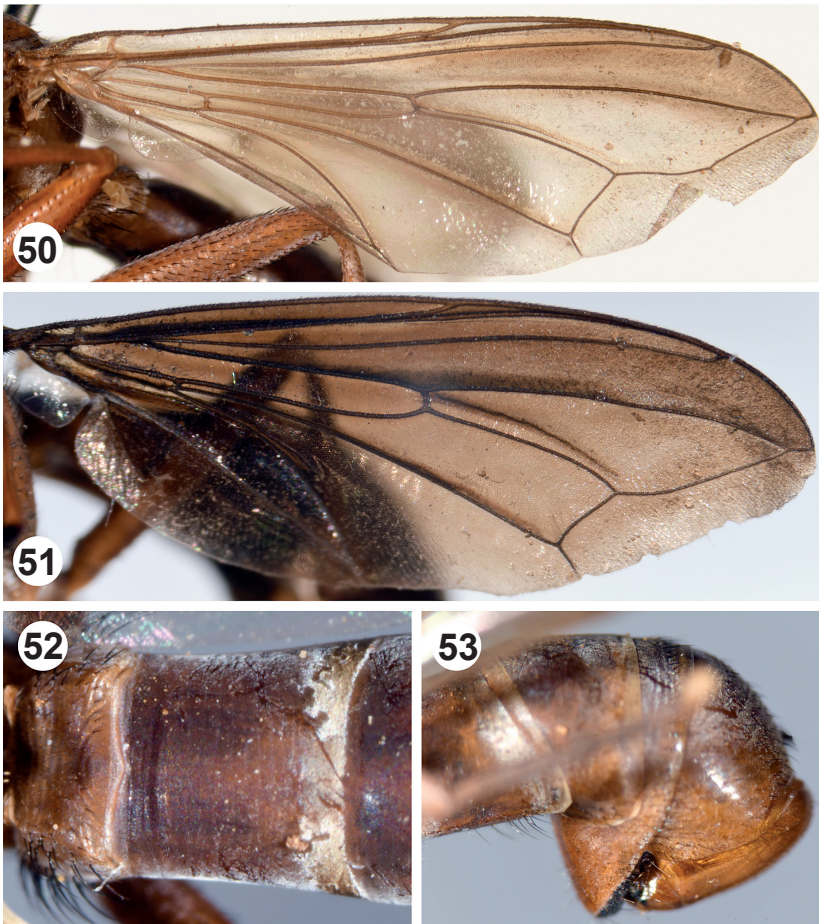
(Figs 46–49)

Conops rugifrons Karsch, 1888: 381.*Conops obscurus* Brunetti, 1925: 106.*Conops camaronensis* Kröber, 1939: 380, **n. syn.****Holotype** of *Conops rugifrons* Karsch, 1888 (examined): ♂ bearing following labels: (1) “Type”; (2) “Usambara / C. W. Schmidt / Febr–März 86”; (3) “*Conops / rugifrons* N.” (ZMHB).**Syntype** of *Conops obscurus* Brunetti, 1925 (examined): ♂ bearing following labels: (1) “Syn- / type”; (2) “Umbilo / 28.3.15”; (3) “Durb / Mus”; (4) “S. Africa”; (5) “Pres. by / Imp. Bur. Ent. / Brit. Mus. / 1924-306.”; (6) “*Conops / obscurus / Brun Type* ♂ / Det. E. Brunetti 1924”; (7) “BMNH(E)# / 249015” (NHML).**Syntype** of *Conops obscurus* Brunetti, 1925 (examined): ♀ bearing following labels: (1) “Syn- / type”; (2) “Durban / (F. Muir)”; (3) “Recd. in exch. / fr. / Dr. Hugh Scott. / 1924.279.”; (4) “*Conops / obscurus / Brun Type* ♀ / Det. E. Brunetti 1924”; (5) “BMNH(E)# / 249014” (NHML).**Syntype** of *Conops camaronensis* Kröber, 1939 (examined): ♂ bearing following labels: (1) “Type”; (2) “S. O. Kamerun / Uam-Gebiet / G. Tessmann S.G. / 29.6.14 [written perpendicularly]”; (3) “Typus”; (4) “*Conops camarunensis* [sic!] / Krb. / det. Kröber 1938” (ZMHB).**Syntype** of *Conops camaronensis* Kröber, 1939 (examined): ♀ bearing following labels: (1) “Type”; (2) “S. O. Kamerun / Uam-Gebiet / G. Tessmann S.G. / 29.6.14 [written perpendicularly] / bei Bosum [written perpendicularly]”; (3) “Typus”; (4) “*Conops camarunensis* [sic!] / Krb. / det. Kröber 1938” (ZMHB).**Material examined: Central African Republic:** 1 specimen, Uamgebiet, Bosum [probably Bozoum; 6°19'N 16°22'E], 30.iv.1914, G. Tessmann, det. as *C. rugifrons* by Camras 2000 (ZMHB); 2♂, 95 km SW Sibut [5°12'N 18°25'E], 24.v.2009, J. Halada (CULSP). **Democratic Republic of Congo:** 1♂, Akam, Mission H. De Saeger, 23.vi.1950, G. Demoulin (MRAC). **Kenya:** 1 specimen, Kilifi (J.), x.1948, van Someren, det. as *C. rugifrons* by Camras (NHML NHMUK010922047); 1♂, Kilifi (J.),

Figs 46–49: *Conops rugifrons* Karsch, 1888, ♀ syntype of *C. camaronensis*: (46) wing, dorsal view; (47) antenna, lateral view; (48) arista, lateral view; (49) claws, dorsal view.

x.1948, van Someren, det. as *C. rugifrons* by Kröber 1931 (NHML NHMUK010922045); 1♂, Kwall Forest, 20 mi W of Mombasa, 1.vi.1948, M. Steele, det. as *C. rugifrons* by Camras 1962 (NHML NHMUK010922046); 1♀, Western Province, Kakamega Forest, sweep net [0°14.13'N 34°51.87'E], sweep net, 14.x.1999, R. Copeland (NMKE). **Namibia:** 1♂, 25 km SE Tsumeb, 15.i.1993, M. Schwarz (PMHA). **South Africa: KwaZulu-Natal:** 1♀, Durban, Umbilo [29°53'S 30°59'E], iv.1926, A.I. Bevis, det. as *C. rugifrons* by Kröber 1931 (NHML NHMUK010922048); 1♂, same but 12.x.1919, A.I. Bevis, det. as *C. rugifrons* by Kröber 1931 (NHML NHMUK010922044); 1♂, Stanger [=KwaDukuza; 29°22'S 31°16'E], 14.iii.1963, H.N. Empey (PMHA); 1♀, Ndumo Game Reserve, W Nyamiti pan [26.0°S 32.264°E], 95 m, Malaise trap, 27.xi–3.xii.2014, P.H. Kerr, S.L. Winterton (PMHA); 1♂, St. Lucia, Fannies Island [28°06'S 32°27'E], 21–25.vii.1981, A.J. Weaving (AMGS).

Remarks: Re-examination of the type material shows that *C. camaronensis* Kröber, 1939 is a junior synonym of *Conops rugifrons* Karsch, 1888 (n. syn.).



Figs 50–53: *Conops simplex* Kröber, 1915: (50) tergite 2, dorsal view, ♀, Rietrivier Mouth; (51) theca, lateral view, ♀, Rietrivier Mouth; (52) wing, ventral view, ♀, Rietrivier Mouth; (53) melanistic wing, ventral view, ♂, Pénéssoulou.

Conops (Asiconops) simplex Kröber, 1915

(Figs 50–53)

Conops simplex Kröber, 1915b: 46.*Conops aureocinctus* Kröber, 1915b: 52, **n. syn.**

Holotype of *Conops aureocinctus* Kröber, 1915 (examined): ♀ bearing following labels: (1) “Algoabay / Capland / Dr. Brauns / 29.12.[18]95 [written perpendicularly]”; (2) “Type”; (3) “*Conops* ♀ / *aureocinctus* m. / O. Kröber det. 1914” (NMW).

Material examined: **Benin:** 1♂, Ahozon, forest area [6°22'57.59"N 2°09'15.92"E], 26.i.2014, G. Goergen (IITA); 1♂, Pénésoulou, forest area [9°15'58.26"N 1°33'04.81"E], xi.2003, G. Goergen (IITA). **Kenya:** 1♂, Coast Province, N edge of Arabuko Sokoke forest [UTM 37 M 607257 9644873], 83 m, 28.v.2006, P. Cerretti, D. Avesani, G. Carpaneto, G. Nardi (PMME). **Nigeria:** 1♀, Ibadan, 24.vii.1947, collector unknown, det. as *C. aureocinctus* by Camras 1999 (NHML NHMUK010922066). **South Africa:** **Western Cape:** 1♂ 1♀, Ceres [33°22'S 19°19'E], ii.1932, J. Ogilvie (NHML NHMUK010922063, NHMUK010922064); 1♂, Worcester [33°39'S 19°26'E], i.1929, J. Ogilvie, wrongly des. as holotype of *C. aureomicans*, det. as *C. castaneus* by Camras 1999 (NHML NHMUK010922051); 1♀, Worcester, i.1929, R.E. Turner, det. as *C. aureocinctus* by Kröber 1938 (NHML); 1♀, Worcester, i.1929, R.E. Turner, det. as *C. aureomicans* by Kröber 1938 (NHML NHMUK010922065); **Eastern Cape:** 1♀, Albany, x.1954, M.J. Cooke (AMGS); 1♂, Grahamstown, Hilton, 6.i.1983, D.W. Gess (AMGS); 1♀, Rietrivier Mouth [33°34'46"S 26°56'14"E], near Port Alfred, 28.i.1973, F.W. Gess (AMGS); 1♀, Howison's Port [33.21°S 26.30°E], 25.ii.1993, G.S. Cumming (AMGS); 1 specimen, Pondoland, Port St. Johns [31°38'S 29°32'E], 15–31.v.1923, R.E. Turner, det. as *C. aureomicans* by Kröber 1938 (NHML NHMUK010922062).



Fig. 54: *Conops stuckenbergi* Camras, 1962, ♂, Andasibe, E Moramanga.

Remarks: The female holotype of *C. aureocinctus* fits completely the concept of *C. simplex*. *Conops aureocinctus* Kröber, 1915 is therefore considered a junior synonym of *Conops simplex* Kröber, 1915 (n. syn.).

Conops (Asiconops) stuckenbergi Camras, 1962

(Fig. 54)

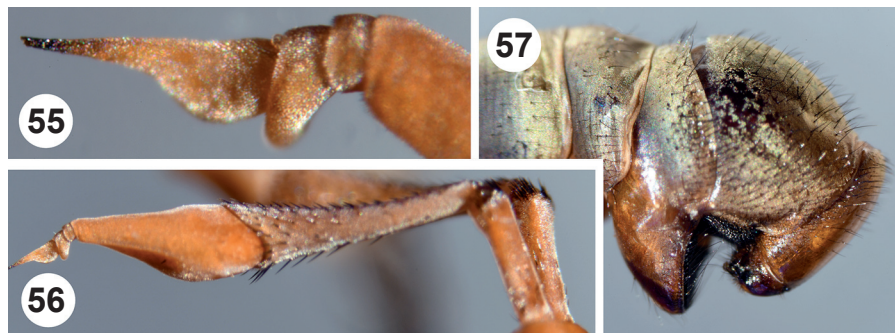
Material examined: Madagascar: 1♂, Andasibe E Moramanga, ca. 200 m S railway station, roadside near river, meadows [18°55.579'S 48°24.983'E], 901 m, 10.iii.2005, W. Barkemeyer (ZMHB); 1♂ 2♀, Fianarantsoa, Miandritsara forest 40 km S Ambositra [20°47.56'S 47°10.54'E], 825 m, Malaise trap, 14.xi–26.xii.2004, M. Irwin (CAS); 1♀, Atsinanana, 50 km S Farafangana [23°07.79'S 47°43.02'E], 33 m, Malaise trap, 26.i–4.ii.2007, M. Irwin, R. Harin'Hala (CAS); 1♂, Fianarantsoa Province, Miandritsara Forest, 40 km S Ambositra, low altitude rainforest [20°47.56'S 47°10.54'E], 825 m, 26.xii.2004–5.i.2005, M. Irwin (CAS); 1♂, Fianarantsoa Province, Ranomafana National Park, radio tower at forest edge, mixed tropical forest [21°15.05'S 47°24.43'E], 1330 m, Malaise trap, 25.xii.2009–11.i.2010, M. Irwin, R. Harin'Hala (CAS); 1♂, same but 23–30.x.2005; 1♀, same but 13–23.vi.2006.

Remarks: The identification of *C. stuckenbergi* is relatively straightforward, for it is typically a large, dark, endemic *Conops* from Madagascar (Fig. 54). It is, however, possible to confuse this species with very similar looking and similarly distributed *Archiconops* species. In addition, atypical light-coloured specimens of *C. stuckenbergi* can be confused with large specimens of the second *Conops* species known from Madagascar, *C. unicolor*. The male specimen from Ranomafana National Park referred to above has completely orange-brown legs, almost completely orange antenna and orange margins of the scutum.

Conops (Asiconops) unicolor Kröber, 1915

(Figs 55–57)

Material examined: Madagascar: 2♂, Ambila-Lemaitso, Ampasimanolotra [18°50'58"S 49°06'30"E], 45 m, Grevillea-Gebüsch, 31.x.2003, A. Ssymank (PASS, PJHS); 1♂ 2♀, Berenty reserve, 80 km W of Port-Dauphin [25°00'S 46°18'E], 9.iv.1994, M. Wasbauer (UCDC); 1♀, Fia Isalo, *Gouania* spec., 19.iii.1994, A. Pauly (MRAC); 1♀, Mailaka, i.1952, N.L.H. Krauss, det. as *C. unicolor* by Camras 1960 (NHML NHMUK010922056); 1♀, Ranomafana, Ampasimanolotra [18°58'05"S 48°50'33'E], 70 m, on *Mangifera indica*, 30.x.2003, A. Ssymank (PJHS); 2♂, 1–10.x.1995, Tam., Foulpointe, plage



Figs 55–57: *Conops unicolor* Kröber, 1915, ♀, Berenty Reserve: (55) arista, lateral view; (56) antenna, lateral view; (57) theca, lateral view.

filet, A. Pauly (MRAC); 1♂, Tam., Morarano-Chrome 25 km W forest, *Acacia farnesiana*, iv.1992, A. Pauly (MRAC); 1♀, Tamatave, ex adult of *Campsomeris pilosella* Saus., vi.1932, A. Moutia (NHML NHMUK010922057); 1♀, Tamatave, no date, V. Bolle, det. as “unbestimmbar”, det. as *C. spec. aff nigritarsis* by Kröber, det as *C. “? new”* by Camras (ZMHB); 1♀, Fianarantsoa Province, 7 km W Sendrisoan of Andringitra [21°57.96'S 46°55.95'E], 1465 m, in vegetation near river, Malaise trap, 15.x–9.xi.2001, M. Irwin, R. Harin'Hala (CAS).

Key 7: Afrotropical species of *Conops (Asiconops) braunsii* species-group.

- 1 First flagellomere longer than pedicel (Fig. 39); apical aristomere with short broad base and long narrow apical tip (Fig. 40); vertex narrow, about half as wide as frons, surrounded by semi-circular grooves (Fig. 38); thorax and abdomen brown to orange-brown, with no distinct black markings; radial cell r_{2+3} hyaline basally and slightly infuscated brown apically; basal radial cell br and basal medial cell bm hyaline, and almost completely without microtrichia; tergite 4 slightly greyish silver dusted all over, without a distinct dusting band at the hind margin; ♀ theca distinctly protruding, anterior surface without any setulae *C. bilineatus* Camras, 2000
- First flagellomere shorter than pedicel; vertex usually broader, not surrounded by semi-circular grooves; other characters variable..... 2
- 2 Wing with pale base and obvious dark tip (Fig. 37): radial cells r_1 and r_{2+3} hyaline basally and brownish distally, basal radial cell br hyaline, radial cell r_{4+5} almost completely dark brown, discal medial cell dm hyaline or at most inconspicuously darkened; all veins light orange-brown in basal half of the wing, vein R_1 completely orange-brown to tip (Fig. 37); all tergites strongly golden dusted, at most with a narrow less dusted anterior margin (Fig. 34); apical aristomere with broad base and short pointed tip only (Fig. 36); legs orange-brown with only fore and middle tarsi black (Fig. 34)..... *C. aureomicans* Kröber, 1933
- If apex of wing darker than base, then never with such light yellow colouration; veins less obviously light yellowish orange basally, vein R_1 usually not completely orange-brown; tergites not almost completely heavily dusted, at most with dusting stripes on the posterior margins; other characters variable 3
- 3 Calypter black; abdomen shiny black. [based on original description] *C. atroviolaceus* Camras, 1962
- Calypter white to light yellowish white but never black; abdomen at least partly dusted..... 4
- 4 Basal radial cell br usually completely covered with microtrichia but at least anterior margin with distinct microtrichia; tibiae more or less black, and may be completely black, obviously contrasting with the orange bases of femora; radial cell r_{4+5} uniformly tinged brown, without obvious contrast between brown area in front of vena spuria and hyaline area behind vena spuria; antennae usually completely, or at least mainly, black; scutum usually completely black; abdomen uniformly dusted, without stronger dusted hind margins; larger species, wing length 9.3–13.3 mm. [Madagascar endemic] *C. stuckenbergi* Camras, 1962

- Cell br mainly bare of microtrichia; tibiae never completely black, usually completely orange to orange-brown; antenna not completely black but usually completely, or at least mainly, orange-brown; other characters variable 5
- 5 Wing hyaline with blackish patch confined to apical half of cell r_{2+3} (Fig. 24); scutum usually completely black, contrasting with orange to brown mediotergite and scutellum, light specimens may have brown margins on scutellum; abdomen typically black, light specimens may have brown abdomen; yellowish brown frons with a black midline, usually reaching from vertex to lunule (Fig. 27); face with a distinct central black spot (Fig. 26); arista as in Fig. 25: apical aristomere somewhat elongated, without obvious black tip or distinctly separated base; legs yellow to orange-brown, with black tarsi
..... *C. apicalis* Kröber, 1915
- Wing more extensively brownish; scutum in most species brown, and may have a more or less large, diffuse, black central spot, which reaches neither lateral borders nor scutellum; abdomen brown or black; frons without black midline; face with or without black spot; arista different; legs more or less dark brown, no obvious contrast between tarsi and tibiae 6
- 6 Characteristic wing colouration (Fig. 46): crossvein dm–cu surrounded by brown, radial cell r_{4+5} completely brown and basal radial cell br hyaline; thorax typically black with contrasting orange postpronotum, but lighter specimens with mainly orange-brown thorax can also occur; apical aristomere short, with a broad base and a short, narrower tip (Fig. 48); femora orange-brown, usually with black apical tarsi; claws white with narrow and contrasting black tip (Fig. 49); small species (wing length < 8.5 mm) *C. rugifrons* Karsch, 1888
- Different wing colouration: crossvein dm–cu not surrounded brown, radial cell r_{4+5} usually lighter in posterior half and behind vena spuria, and basal radial cell may be slightly infuscated brownish or yellowish; thorax typically brown, if black then without contrasting orange postpronotum; other characters variable 7
- 7 Apical aristomere shortly pointed, with abruptly broadened base (Fig. 55); abdomen slightly grey dusted all over, usually with only indistinct dusting bands on hind margins of tergites; tergite 2 with single long black setula laterally; ♀ theca as in Fig. 57. [Madagascar endemic] *C. unicolor* Kröber, 1915
- Apical aristomere narrow and elongated or short-pointed, without abruptly broadened base (Figs 29, 45); abdomen heavily dusted or with distinct dusted bands at hind margin of tergites 2+3; tergite 2 with or without long black lateral setula; ♀ theca different. [Species not recorded from Madagascar] 8
- 8 Tergite 2 without long black submedial setulae (Fig. 52); tergites 2+3 with clearly defined, distinct dusting bands at hind margins of almost uniform width, becoming slightly narrower laterally (Fig. 52); tergite 4 in dorsal view obviously less dusted than tergites 5+6; thorax only slightly dusted; ♀ theca short (Fig. 53) *C. simplex* Kröber, 1915

- Tergite 2 with submedial setulae that can be seen in dorsal view and are longer than diameter of hind tibia (Fig. 32); tergites 2+3 without distinct dusting bands but entirely heavily dusted in anterior view; thorax may be heavily dusted in anterior view; ♀ theca long or short..... 9
- 9 Antenna orange (Fig. 44); apical aristomere less than twice as long than other two aristomeres together (Fig. 45); proboscis orange, only labellum slightly darker brownish (Fig. 41); paler species with postpronotum, hind femur and frons orange-brown (Fig. 41); ♀ theca short (Fig. 43).....
..... *C. braunsii* Kröber, 1915
- Pedicel and first flagellomere black (Fig. 30); apical aristomere about 3 times as long as other two aristomeres together (Fig. 29); proboscis black apically (Fig. 31); darker species with thorax with postpronotum black to dark brown, hind femora black at base and frons dark brown (Fig. 28); ♀ theca long (Fig. 33).....
..... *C. argentspatium* Brunetti, 1929

Genus *Conops* (*Asiconops*) *ferruginosus* species-group

This species-group of *Conops* (*Asiconops*) is monotypic.

Conops (*Asiconops*) *ferruginosus* Kröber, 1915

(Figs 58–60)

Conops ferruginosus Kröber, 1915b: 40.

Conops concolor Brunetti, 1925: 107, **n. syn.**

Conops atrimanus Kröber, 1939: 379, **n. syn.**

Conops bicingulatus Camras, 2000: 223, **n. syn.**

Conops tschirnhausi Stuke, 2012: 77 [substitute name for *Conops fraternus* Kröber, 1933: 285], **n. syn.**

Conops ferrugineus, misspelling *auct.*

Holotype of *Conops ferruginosus* Kröber, 1915 (examined): ♀ bearing labels: (1) “3036”; (2) “*Conops* ♀ / *ferruginosa* Kröb. / O. Kröber det. 1914”; (3) “Type”; (4) “Zool. Mus. / Berlin” (ZMHB).

Syntype of *Conops concolor* Brunetti, 1925 (examined): ♂ bearing labels: (1) “Syn- / type”; (2) “Mlanje, / Nyasaland / 14.II.1913 / S.A. Neave”; (3) “Press. by / Imp. Bur. Ent. / Brit. Mus. / 1924 - 306”; (4) “*Conops* / *concolor* / Brun. Type ♂ / Det. E. Brunetti 1924”; (5) “BMNH(E)# / 248975” (NHML).

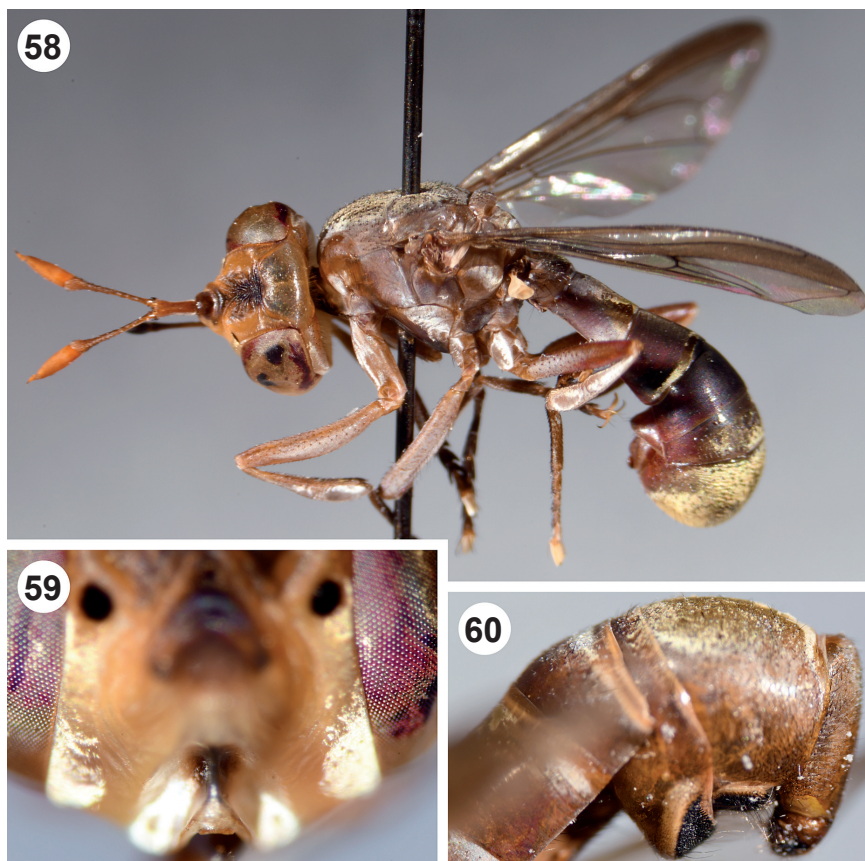
Syntype of *Conops concolor* Brunetti, 1925 (examined): ♀ bearing labels: (1) “Syn- / type”; (2) “Mlanje, / Nyasaland / 3.II.1913 / S.A. Neave”; (3) “Press. by / Imp. Bur. Ent. / Brit. Mus. / 1924 - 306”; (4) “*Conops* / *concolor* / Brun Type ♀ / Det. E. Brunetti 1924”; (5) “BMNH(E)# / 248976” (NHML).

Holotype of *Conops fraternus* Kröber, 1933 (examined): ♂ bearing labels: (1) “Holotype”; (2) “Type”; (3) “Durban, / Natal / 6 - 3 21 / C. N. Barker / Stella [written perpendicularly] / 2643 [written perpendicularly]”; (4) “Press. by / Imp. Inst. Ent. / Brit. Mus. / 1932-143”; (5) “*Conops* ♀ [sic!] / *fraternus* Krb / det Kröber 1931”; (6) “*Conops* ♂ / *rondanii* Bzzi / det Kröber 1931”; (7) “BMNH(E)# / 248977” (NHML).

Holotype of *Conops atrimanus* Kröber, 1939 (examined): ♀ bearing labels: (1) “S. O. Kamerun / Uam-Gebiet / G. Tessmann S.G. / bei Bosum [written perpendicularly] / 29.6.14 [written perpendicularly]”; (2) “*Conops apicalis* / var *atrimanus* Krb. / det. Kröber 1938” (ZMHB).

Holotype of *Conops bicingulatus* Camras, 2000 (examined): ♂ bearing labels: (1) “B5 / 246”; (2) “Tanzania / 19 / Ex. Coll. W: H. Potts. / B. M. 1967-472”; (3) “Holotype ♂ / *Conops* (*Asiconops*) / *bicingulatus* / Camras” (NHML).

Material examined: **Benin:** 1♂, Ahozon, forest area [6°22'57.59"N 2°09'15.92"E], sweepnet, i.2006, G. Goergen (IITA); 1♂, Togbota, sweep netting on flowers, 17.i.2018, G. Goergen (IITA). **Burundi:** 1♂, Bubanza, Musigati, Mirwa, 1450 m, 21.vi.1953, F.J. François, det. as *C. brunnipennis* by Janssen 1954 (ISNB). **Central African Republic:** 1♂, Uamgebiet, Bosum [probably Bozoum; 6°19'N 16°22'E], 11–20.iv.1914, Tessmann, det. as *C. brunnipennis* by Camras 2000 (ZMHB). **Democratic Republic of Congo:** 1♂, Banana [6°00'S 12°20'E], ix.1915, Expedition Lang-Chapin, det. as *C. rondanii* by Curran (MRAC); 1♂, Eala, v.1932, H.J. Brédo, det. as *C. apicalis* by Kröber 1935 (MRAC); 1♂, Eala, iii.1932, H.J. Brédo, det. as *C. brunnipennis* by Camras 1962 (MRAC); 1♀, Eala, 15.x.1931, H.J. Brédo, det. as *C. platyfrons* by Camras 1962 (MRAC); 1♂, Kisantu, 1928, R.P. Vanderyst, det. as *C. apicalis* by Kröber 1935 (MRAC); 1♀, Kisantu, 1927, R.P. Vanderyst, det. as *C. apicalis* by Kröber 1935 (MRAC); 1♂, Kwango, Atene, no date, Charlier, det. as *C. brunnipennis* by Brunetti 1925 (MRAC); 1♂, Sankuru, Djeka, 1955/1956, R. Roiseux, det. as *C. nigritarsis* by Stuke 2003 (MRAC). **The Gambia:** 2♂, Banjuls, B. B. Hotel, 5.ii.1987, G.G.M. Schulten (RMNH). **Kenya:** 1♀, Takaungu [3°42'S 39°49'E], 20 m, 17.ix.2005, A. Freidberg (SMNHNTAU); 1♂, Witu, 28.ii.1912, S.A. Neave, des. as cotype of *C. castaneus*, det. as *C. castaneus* by Camras 1999 (NHML NHMUK013644296); 1♂, Witu, 15.xii.1913, S.A. Neave, des. as cotype of *C. castaneus* (NHML NHMUK013644294); 1♂, Coast Province, 10 km W Malindi [UTM 37 M 615633 9643613], 100 m, 24.v.2006, P. Cerretti, D. Avesani, G.



Figs 58–60: *Conops ferruginosus* Kröber, 1915: (58) habitus, lateral view, ♂, 10 km W Malindi; (59) face, anterior view, ♂, 10 km W Malindi; (60) ♀ theca, anterior view, ♀, 15 km S Guro.

Carpaneto, G. Nardi (PMME); 1♀, Coast Province, 10 km W Malindi [UTM 37 M 615633 9643613], 100 m, hand net, 24.v.2006, P. Cerretti, D. Avesani, G. Carpaneto, G. Nardi, det. as *C. bicingulatus* by Mei 2006 (PMME); 1♀, Coast Province, Galana river near Tsavo East National Park, Sala Gate [UTM 37M526558 9660100], 153 m, hand net, 23.v.2006, D. Avesano, G. Carpaneto, G. Nardi, P. Cerretti (PMME); 1♂, Coast Province, N edge of Arabuko Sokoke forest [UTM 37 M 607257 9644873], 83 m, 28.v.2006, P. Cerretti, D. Avesani, G. Carpaneto, G. Nardi (PMME); 1♀, Garissa County, Boni Forest, 300 ft, xi.1945, J. Adamson, det. as *C. frontalis* by Camras 1962 (NHML NHMUK010922055). **Malawi:** 1♂, Nyasaland, Cholo [=Thyolo District], 9.xii.1916, R.C. Wood, des. as syntype of *C. castaneus* (NHML NHMUK013644295); 1♂, Nyasaland, Mlanje [=Mulanje], 21.iv.1913, S.A. Neave, det. as *C. brunnifrons* by Kröber (NHML NHMUK013644304). **Mozambique:** 1♀, 15 km S Guro [17°33'S 33°16'E], 800 m, 30.xi.2005, Kadlecová (CULSP); 1♂, Delagoa Bay, 20.iv.1983, det. as *C. bipunctatus* by Kröber 1926 (MLUH). **Senegal:** 1♀, Abéné, 24.iii.1991, M. Kraus (ZSM). **Tanzania:** 1♀, Nyasasee [Lake Nyasa], Langenburg [=Tukuyu], 9–19.viii.1898, Fülleborn, det. as *C. brunnipennis* by Stuke 2003 (ZMHB); 1♀, 'Tanzania', no date, W.H. Potts, allotype of *C. bicingulatus* (NHML NHMUK010922060); 1♂, 'Tanzania', no date, W.H. Potts, paratype of *C. bicingulatus* (NHML NHMUK010922058); 1♂, 'Tanzania', no date, W.H. Potts, paratype of *C. bicingulatus* (NHML NHMUK010922059).

Remarks: When Brunetti (1925) described *C. concolor* he did not mention Kröber's work of 1915. His description of the species and the type material fits completely the material of *C. ferruginosus*, and therefore *Conops concolor* Brunetti, 1925 is considered a junior synonym of *Conops ferruginosus* Kröber, 1915 (n. syn.).

The holotype of *C. atrimanus* is also conspecific with *C. ferruginosus* and therefore *Conops apicalis* var. *atrimanus* Kröber, 1939 is also treated as a junior synonym of *C. ferruginosus* Kröber, 1915 (n. syn.).

Conops bicingulatus was described by Camras (2000) from Tanzania. The holotype and the paratype fit completely the concept of *C. ferruginosus* as presented here, and therefore, *C. bicingulatus* is placed in synonymy under *C. ferruginosus* Kröber, 1915 (n. syn.). The female paratype of *C. bicingulatus* has an obviously longer theca than in any other specimen of *C. ferruginosus*. The shape of the theca is usually an important taxonomic character, but in this case, I interpret the theca of the paratype as an individual aberration. If, however, more specimens with this character become available in future this interpretation may need to be revised.

The holotype of *C. fraternus* is conspecific with *C. ferruginosus* and therefore its replacement name *Conops tschirnhausi* Stuke, 2012 has to be treated as a junior synonym of *C. ferruginosus* Kröber, 1915 (n. syn.).

Genus *Conops* s. str.

Afrotropical species of *Conops* s. str. can be identified using Key 8 (p. 325).

Conops (Conops) africanus (Rondani, 1873)

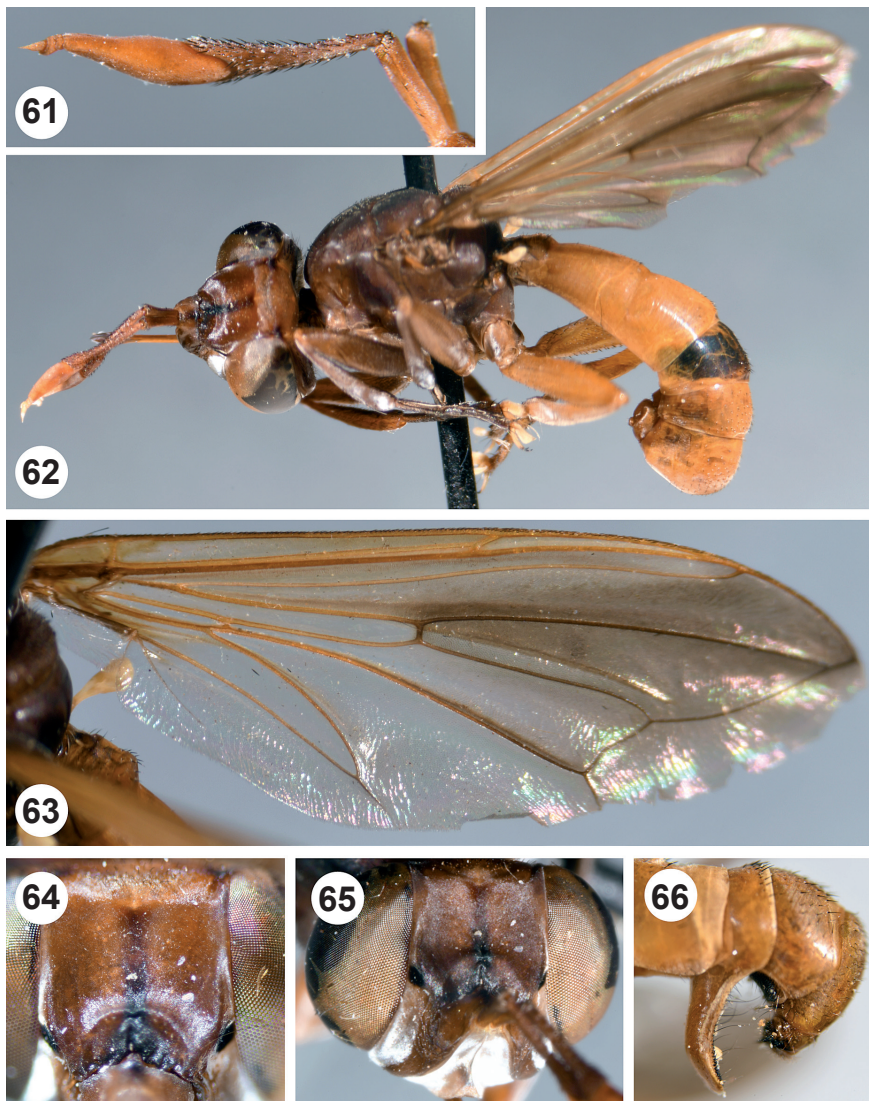
Material examined: Democratic Republic of Congo: 1♀, Kindu, xi.1913, L. Burgeon, wrongly labelled as "Type", identified as *C. africanus* by Kröber 1935 (MRAC).

Remarks: Although the specimen reported here is erroneously labelled as the "Type" of *C. africanus* it fits very well the redescription of this species given by Kröber (1915b). It is clearly different from all other known *Conops* species and therefore the identification and use of the name *C. africanus* for this species appears appropriate.

Conops (Conops) aurantius Brunetti, 1925

(Figs 61–66)

Syntype of *Conops aurantius* Brunetti, 1925 (examined): ♂ bearing following labels: (1) “Syn- / type”; (2) “Estcourt / Natal”; (3) “Reed. in exch. / fr. / Dr. Hugh Scott / 1924.279”; (4) “*Conops / aurantius* / Brun Type ♂ / Det. E. Brunetti 1924”; (5) “BMNH(E)# / 248979” (NHML).



Figs 61–66: *Conops aurantius* Brunetti, 1925: (61) antenna, lateral view, ♂, 100 km SW Rundu; (62) habitus, lateral view, ♂, Ruyigi; (63) wing, ♂, Ruyigi; (64) frons, dorsal view, ♂, Ruyigi; (65) head, dorsal view, ♂, Ruyigi; (66) ♀ theca, lateral view, ♀, 125 km SW Rundu.

Syntype of *Conops aurantius* Brunetti, 1925 (examined): ♀ bearing following labels: (1) “Bulawayo / S. Rhodesia. / 21.12.1919 / Rhodesia / Museum”; (2) “Press. by / Imp. Bur. Ent. / 1924-306”; (3) “*Conops aurantius* / Brun Type ♀ / Det. E. Brunetti 1924”; (4) “BMNH(E)# / 248980” (NHML).

Material examined: **Democratic Republic of Congo:** 1♀, Katanga, Kasenga, iv.1931, H.J. Brédo, det. as *C. aurantius* by Kröber 1935 (MRAC). **Malawi:** 1♀, Salima, lake Malawi [13°45'S 34°29'E], 4.iii.2001, F. Koch (ZMHB). **Mozambique:** 1♀, Sofala Province, 110 km NW Save, 7.xii.2003, J. Halada (CULSP). **Namibia:** 1♂, 100 km SW Rundu, 1.ii.1993, J. Gusenleitner (PMHA); 1♀, 125 km SW Rundu, 16.i.1993, M. Schwarz (PMHA); 1♂, 40 km E Rundu, 21.i.1993, M. Schwarz (PMHA). **South Africa:** 1♀, “South Africa”, no date, collector unknown, det. as *C. aurantius* by Kröber 1938 (NHML NHMUK013644287); 1♂, “Umgebung Pretoria, Mamagaties Kraal” [North-West Province, Brits, Mamagatieskraal], 2.ii.1926, Lingnau, det. as *C. aurantius* by Kröber 1939 (SDEI). **Uganda:** 2♂, Terr. de Ruyigi, v.1956, F.J. François (ISNB). **Zimbabwe:** 1♂, Umtali District, 19.xi.1931, P.A. Sheppard, det. as *C. aurantius* by Camras 1962 (NHML NHMUK013644286).

Remarks: *C. aurantius* typically has a bright yellow wing base due to light yellow veins, but this character is variable and specimens with almost uniformly brown wing veins also occur (as, for example, in the male syntype). The abdomen is typically orange but may have some black spots (Fig. 62) although this may just be a preparation artefact. Contrary to Stuke (2017) all three specimens mentioned in the original description should be interpreted as syntypes.

Conops (Conops) flavicauda (Bigot, 1880)

(Fig. 67)

Material examined: **Uganda:** 1♀, Bugiri, wooded savannah, 1400 m, 5–8.viii.1957, P. Basilewsky, N. Leleup, det. as *C. flavicaudatus* [sic!] by Camras 1962 (MRAC).



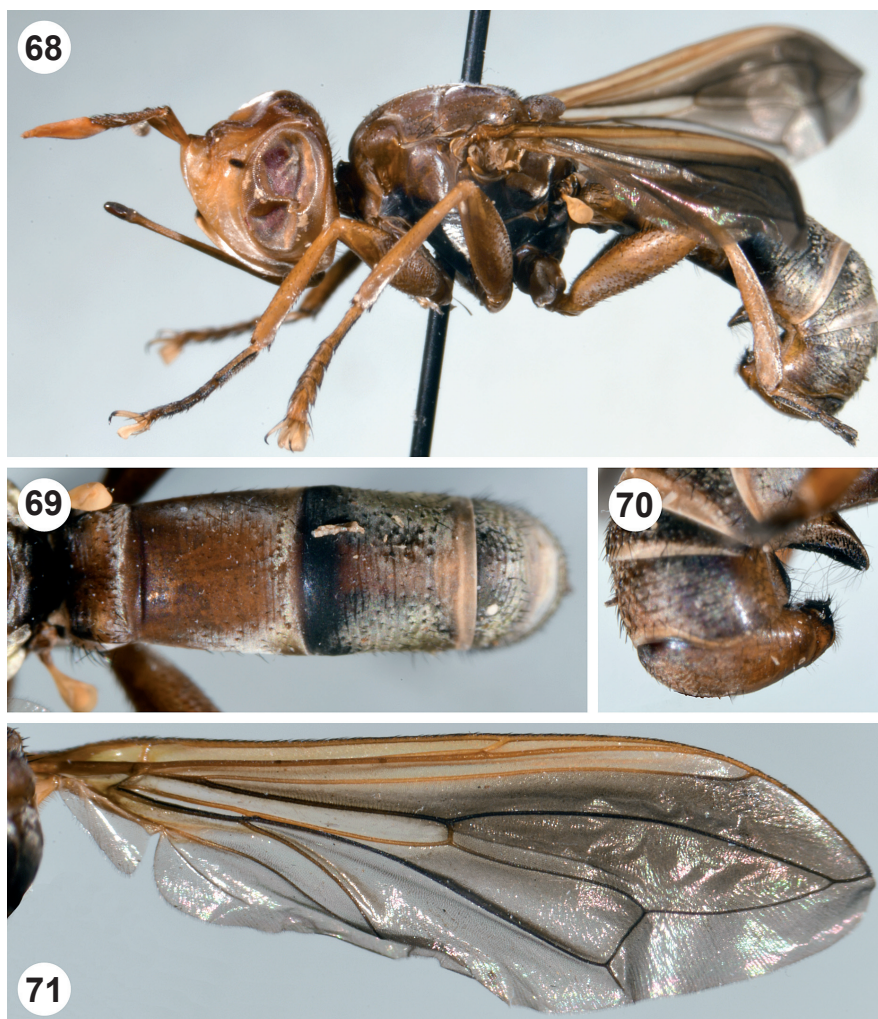
Fig. 67: *Conops flavicauda* (Bigot, 1880), ♂, Greece, Xios.

Conops (Conops) occultus n. sp.
(Figs 68–76)

LSID: urn:lsid:zoobank.org:act:86B8C67F-2640-40CE-8246-66A1C2B84B50.

Etymology: The name is derived from Latin *occultus*, meaning ‘hidden’. The species was for a long time concealed amongst specimens of *C. pallidemarginatus*.

Diagnosis: At the first glance *C. occultus* is very similar to *C. pallidemarginatus*, and the holotype was stored with material of *C. pallidemarginatus* with a question-



Figs 68–71: *Conops occultus* n. sp., holotype: (68) habitus, lateral view; (69) abdomen, dorsal view; (70) theca, lateral view; (71) wing, dorsal view.

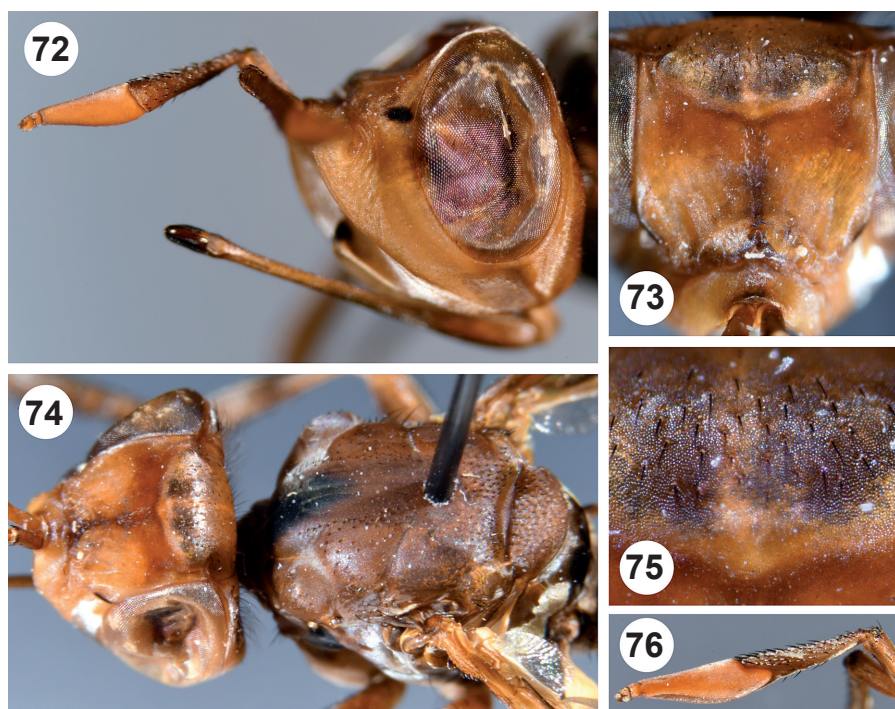
mark for a long time. The species is easily recognised, however, using the details as described in Key 8. The colouration pattern of the scutum (Fig. 74) is unique in the genus. In addition, if the lack of tufts of black setulae laterally on tergite 2 turns out to be a constant character, this may also be a unique character within the genus.

Description: Male. Body length ca. 11 mm. Wing length 8.9 mm. Head height 3.0 mm.

Head without setae. Antenna orange. Arista stylus-like, with 3 aristomeres at tip of first flagellomere (Figs 72, 76). Basal aristomere distinct and about as long as medial aristomere. Apical aristomere reduced, about as long as basal aristomere, and not pointed. Medial aristomere ventrally protruding and directed forward. Scape about 3× longer than maximum width, apically and laterally with black setae. Pedicel about 4× longer than maximum width, completely covered with black setae. First flagellomere about as long as pedicel, ventrally with a hardly visible membranous area. First flagellomere without setae dorsally. Lunule between base of antennae and ptilinal suture distinctly developed, longer than width of scape. Eyes brown, without ommatrichia. Facets in middle of medial margin distinctly enlarged compared to surrounding facets. Posterior margin of eye convex, with indistinct indentation. Genal height of head/eye height (measurements taken from head in lateral view) = 0.3. No ocellar tubercle, no ocelli and no ocellar triangle. Frons (Fig. 73) shorter than broad, distinctly concave, not projecting above eyes, and without setulae. Frons slightly silver dusted, with narrow silver dusted lateral margins. Frons without grooves. Anterior margin of frons almost straight. Frons orange-brown with indistinct narrow brownish central stripe (Fig. 73). Distinct black frontofacial spots (Fig. 72). Vertex slightly narrower than frons, separated from latter by indistinct ridge. Ridge between vertex and frons without longitudinal grooves. Vertex covered with black setulae. Vertex anteriorly with obviously roughened surface. Face yellow to yellowish brown. Facial keel ventrally and frontoclypeal tubercle with small black spot. Gena light brown. Parafacial and antennal grooves silver dusted. Facial ridge and gena only inconspicuously dusted. Gena without setulae. Distinct facial carina reaching from bases of antennae to distinctly broadened and outstanding frontoclypeal tubercle. Ptilinal suture stretching on either side beneath antennal bases. Mouth opening tapering dorsally. Postcranium not obviously invaginated. Postcranium orange-brown. Adjacent to posterior margin of eye, obvious stripe of silver dusting, remaining postcranium slightly dusted. Postcranium with black setulae. No setulae on small area adjacent to eye margin and on bottom portion of postcranium. Postgena not widened and therefore not separated from occiput. Bottom portion of postcranium distinctly demarcated. Proboscis orange-brown with dark brown labellum. Frontoclypeal membrane narrow, hardly broadened basally, orange-brown and clearly distinguished from clypeus. No palps recognised. Proboscis capitate. Labium about twice as long as head length, distinctly thickened basally, anterior section completely fused into tube. Labrum cannot be examined in holotype. Labellum short, completely divided, not broader than adjacent haustellum,

and covered with single, short, black setulae. Pseudotrachae invisible due to collapsed labella.

Thorax brown with small anteromedial black spot on scutum (Fig. 74). Mediotergite and pleura blackish in ventral half of thorax (Fig. 68). Thorax slightly to strongly silver dusted all over, depending on viewing angle. A distinct dusted stripe reaches from middle coxa to notopleuron. Presternum distinct, only slightly narrower than compound basisterna, with which it is fused. Basisternum broad, not narrowed to a tip, without setulae. Proepisternum with 1–2 black setae and 1–2 smaller setulae. Mediotergite convex, without setae, and projecting distinctly over scutellum. Subscutellum inconspicuous. Scutellum small, with scattered black setulae. No scutellar setae recognised. Scutum with short black setulae, no setulae medially and sublaterally. Setae cannot be distinguished safely from long black setulae on scutum. 1 long black seta dorsally on katepisternum, but with no seta ventrally. Metakatepisternum without setae. Anepisternum and anepimeron without setulae nor setae. Wing tinged light brownish with the exception of an obviously yellow anterobasal area (Fig. 71). Yellow area seen best when looking from wing tip. Yellow wing base comprises subcostal cell *sc*, radial cell *r*₁, basal radial cell *br*

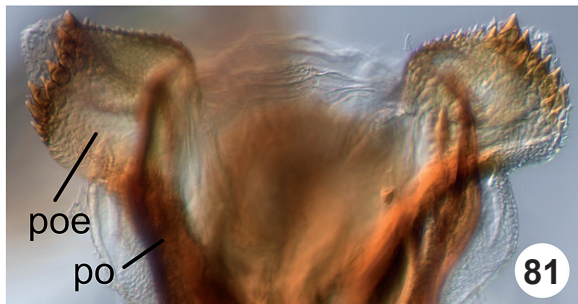
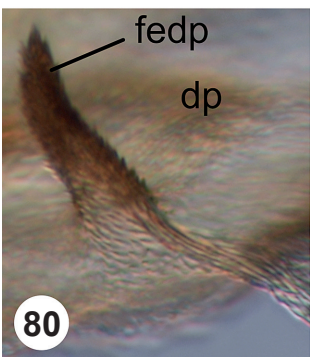
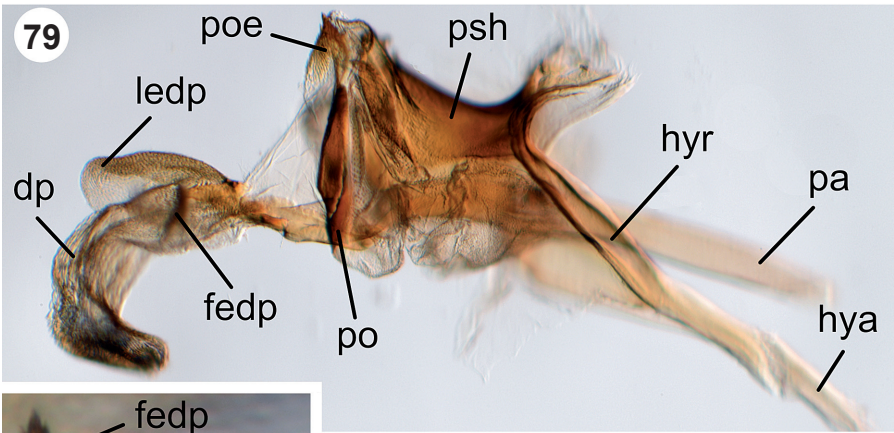
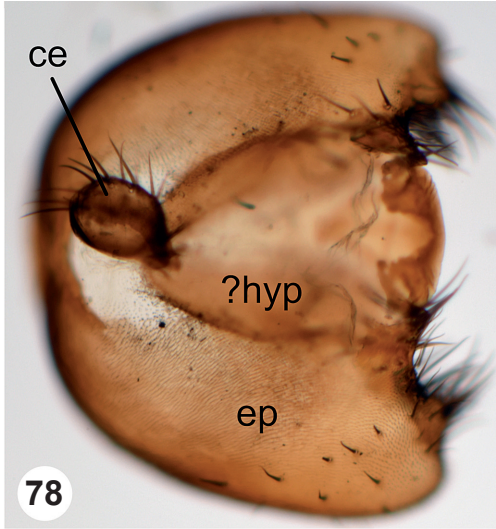


Figs 72–76: *Conops occultus* n. sp., holotype: (72) head, lateral view; (73) frons, dorsal view; (74) head and scutum, dorsolateral view; (75) structure of vertex, dorsal view; (76) antenna, lateral view.

and base of basal medial cell bm. In this area veins yellow, contrasting with brown colouration of veins outside this area. Darker brown colouration present in radial cell r_{2+3} and radial cell r_{4+5} . Wing completely covered with microtrichia. Basal-medial-cubital crossvein bm-cu very short and incomplete. Vein R_1 and R_{2+3} terminate close together in costa, well beyond end of subcosta. Vein R_{4+5} with a shallow and even anterior curve in distal section. Cell r_{4+5} pedunculate, with vein $R_{4+5}+M$ distinctly expressed and longer than r-m crossvein. Cubital cell cup elongated (distinctly longer than vein A_1+CuA_2) and pointed distally (cubitus CuA_2 and anal vein A_1 meet at an acute angle). Cubital vein CuA_1 and crossvein bm-cu separated. Upper and lower calypters yellowish white, upper calypter with long white setulae on margin. Alula broad (about 2× broader than long), with short setulae on posterior margin. Obvious vena spuria in radial cell r_{4+5} . Haltere yellowish white with light brown base. Base and stem of haltere each with areas of sensillae. No setulae recognised on haltere. Legs light brown, with silver to golden dusting. Posterior surfaces of fore and middle tibiae with densely silver dusted fields. Legs with black setulae. Areas with dense golden-brown setulae ventrally at tip of fore tibia and dense black to brown setulae posteriorly at tip of hind tibia. Apical half of middle femur posteriorly with row of regularly arranged, long black setulae. Hind femur dorsally with slightly outstanding longer setulae at tip. No praeapical seta recognised. No setae ventrally on tibiae. Femora ventrally with rows of short, stout black setae more or less arranged in lines. Hind coxa with 1 outstanding black seta. Pulvilli whitish yellow. Claws yellow with distinct black tips. Empodium whitish yellow.

Abdomen mainly orange-brown (Figs 68, 69). Tergite 3 blackish anteriorly and laterally. Tergites 4+5 almost completely black. Tergite 6 black laterally. Syntergite 8+9 black anteriorly. Abdomen with scattered, short black setulae all over. Tergite 1 with indistinct silver dusted hind margin. Tergite 2 with silver to golden dusted hind margin, and silver to golden dusted lateral margins. Tergites 3–6 almost completely silver to golden dusted, syntergite 8+9 dusted in anterior half. Tergites 1–3 fused but distinctly demarcated from each other. The female holotype was not dissected, therefore the description of the postabdomen remains incomplete. Abdomen parallel-sided, only slightly broader at segment 2. Sternites 1–2 fused but still distinct. Sternites 3–4 not protruding ventrally. Tergite 5 and sternite 5 fused laterally to form syntergosternite with obvious theca below. Theca long and distinctly protruding. Shape of theca as in Fig. 70. Anterior surface of theca without setulae. Posterior surface of theca with close-set spicules arranged in broken horizontal lines. Sternite 6 almost completely covered with spicules that are more or less arranged in horizontal lines of palisade groups. Tergite 7 distinctly bent ventrally, without longitudinal gap, and without tooth. Tooth on syntergite 8+9 distinct, its base elongated anteriorly. Long setulae lateral to base of tooth on syntergite 8+9. Paired cerci distinct, with dense erect black setulae.

Holotype: ♂ **Ethiopia:** (1) “Ethiopia - S / 20km SE Konso / 05°15'N 37°32'E 850m/m / J. Halada, 11–13.V.2015”; (2) “Holotypus / *Conops / occultus* / spec. nov. ♀ / det. Stuke 2018” (CULSP). The specimen is pinned. Right fore leg, both hind tarsi and apical segments of arista are missing, otherwise the specimen is in a good condition (Fig. 68).



Figs 77–81: Postabdomen of *Conops pallidemarginatus* Kröber, 1936, ♂, Côte d'Ivoire: (77) epandrium, posterior view; (78) epandrium, dorsal view; (79) hypandrium and aedeagus, lateral view; (80) finger like evagination of distiphallus, lateral view; (81) tip of hypandrium, anterodorsal view. Abbreviations: ce – cerci, dp – distiphallus, ep – epandrium, fedp – finger-like small evagination of distiphallus,hya – hypandrial arm, hyp – hypoproct, hydr – hypandrial bars, ledp – large evagination of distiphallus, pa – phallapodeme, po – postgonite, poe – postgonite evagination, psh – phallus sheet, se – subepandrial sclerite.

Conops (Conops) pallidemarginatus Kröber, 1936

(Figs 77–86)

Holotype of *Conops pallidemarginatus* Kröber, 1936 (examined): ♂ bearing following labels: (1) “C. Type / pallide- / marginatus”; (2) “Musée du Congo / Elisabethville / -iv-1933 / De Loose”; (3) “*Conops pallide / marginatus / Krb. / Kröber 1935*”; (4) “R. DÈT / E / 2992”; (5) “Type”; (6) “RMCA ENT / 000012171” (MRAC).

Material examined: Democratic Republic of Congo: 1♀, Lubumbashi, Katanga, 18.iii.1921, Bequaert, det. as *C. semifumosus* by Brunetti 1925 (MRAC). **Côte d'Ivoire:** 1♂, Lamto, 10.xi.1965, Y. Gillon (MNHN). **Zimbabwe:** 1♂ 1♀, Salisbury [= Harare, 17.84°S 31.05°E], 5000 ft, iii.1900, Y. Gillon (NHML).

Conops (Conops) pulcher Camras, 2000

(Figs 87, 88)

Holotype of *Conops pulcher* Camras, 2000: ♂ bearing following labels: (1) “Uganda / Koputh to Karenga / road . 14.viii.1958 / J. Bowden”; (2) “”; Holotype ♂ / *Conops (Conops) / pulcher / Camras*; (3) “*Conops / pulcher / n. sp.*” (NHML).

Material examined: Ethiopia: 1♂, Harar, 1912, G. Kristensen (ZMHB).

Conops (Conops) schachtii n. sp.

(Figs 89–95)

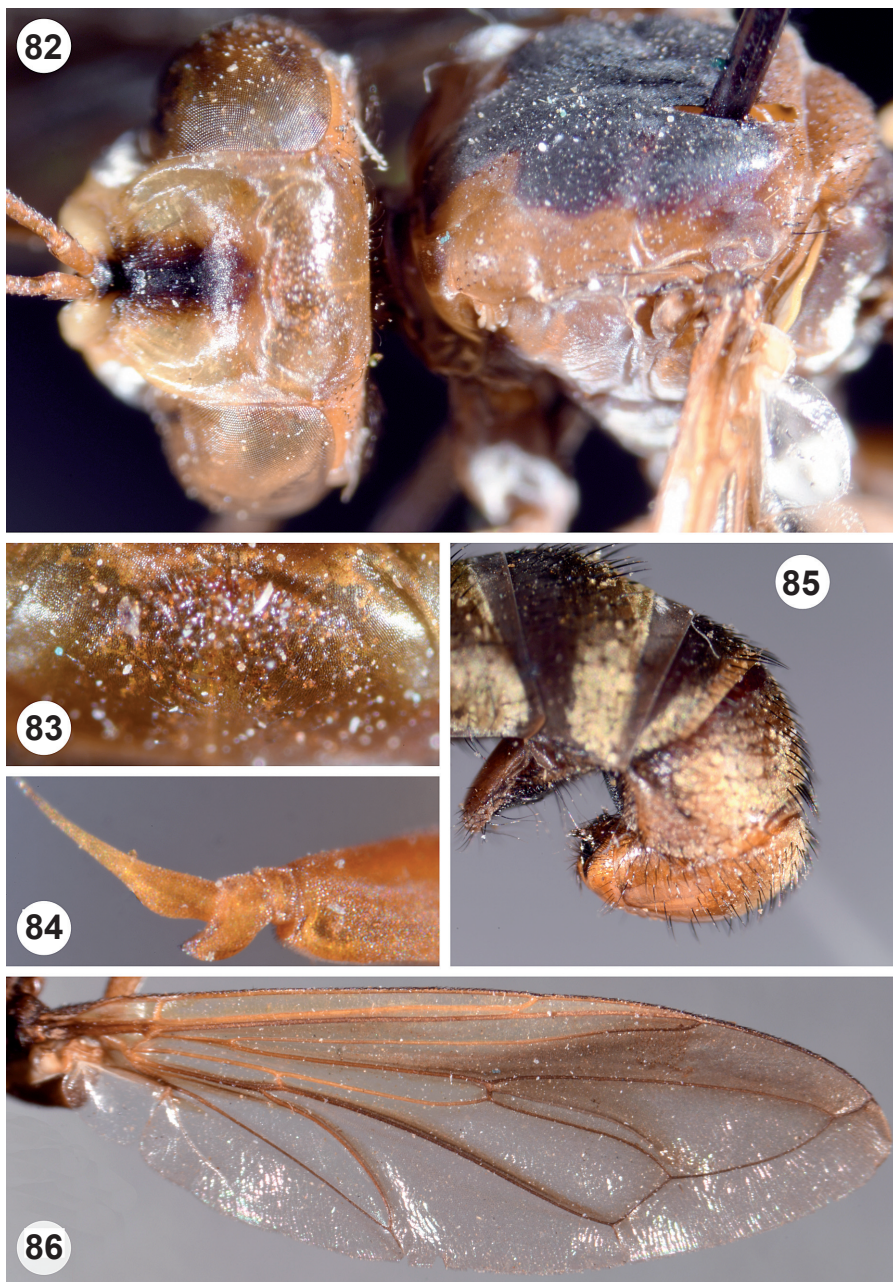
LSID: urn:lsid:zoobank.org:act:A5FDA910-8983-4E7B-BC11-98CDB9F484AD.

Etymology: The species is dedicated to Wolfgang Schacht (1939–2011), who collected the type and was one of the most important Diptera collectors in Germany.

Diagnosis: *C. schachtii* can be easily recognised by the unique shape of the female abdomen (Fig. 91), and by the completely brown scutum. The species is included in Key 8 (p. 325).

Description: Female. Body length ca. 12 mm. Wing length 8.0 mm. Head height 2.7 mm.

Head without setae. Antenna orange. Arista stylus-like, with 3 aristomeres at tip of first flagellomere (Fig. 94). Basal aristomere inconspicuous and about half the length of medial aristomere. Apical aristomere slightly longer than two basal aristomeres together. Medial aristomere distinctly higher than basal and apical aristomeres. Apical aristomere with broad base and pointed tip. Scape about 4× longer than maximum width, apically and laterobasally with black setae. Pedicel about 4× longer than maximum width, dorsally and laterally covered with black setae. First



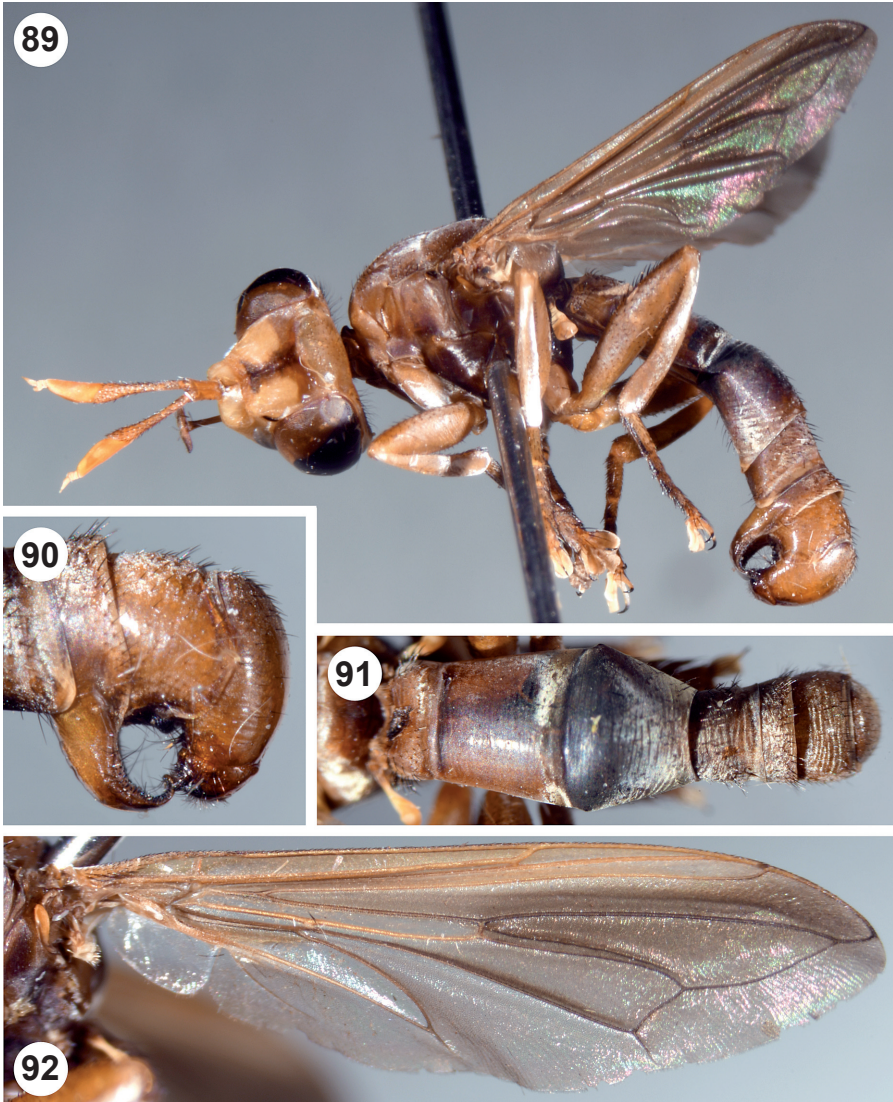
Figs 82–86: *Conops pallidemarginatus* Kröber, 1936, Harare [Salisbury]: (82) head and thorax, dorsolateral view, ♂; (83) vertex, dorsal view, ♂; (84) arista, lateral view, ♂; (85) theca, lateral view, ♀; (86) wing, dorsal view, ♀.



Figs 87, 88: *Conops pulcher* Camras, 2000, ♂, Harar: (87) habitus, lateral view; (88) head and thorax, dorsolateral view.

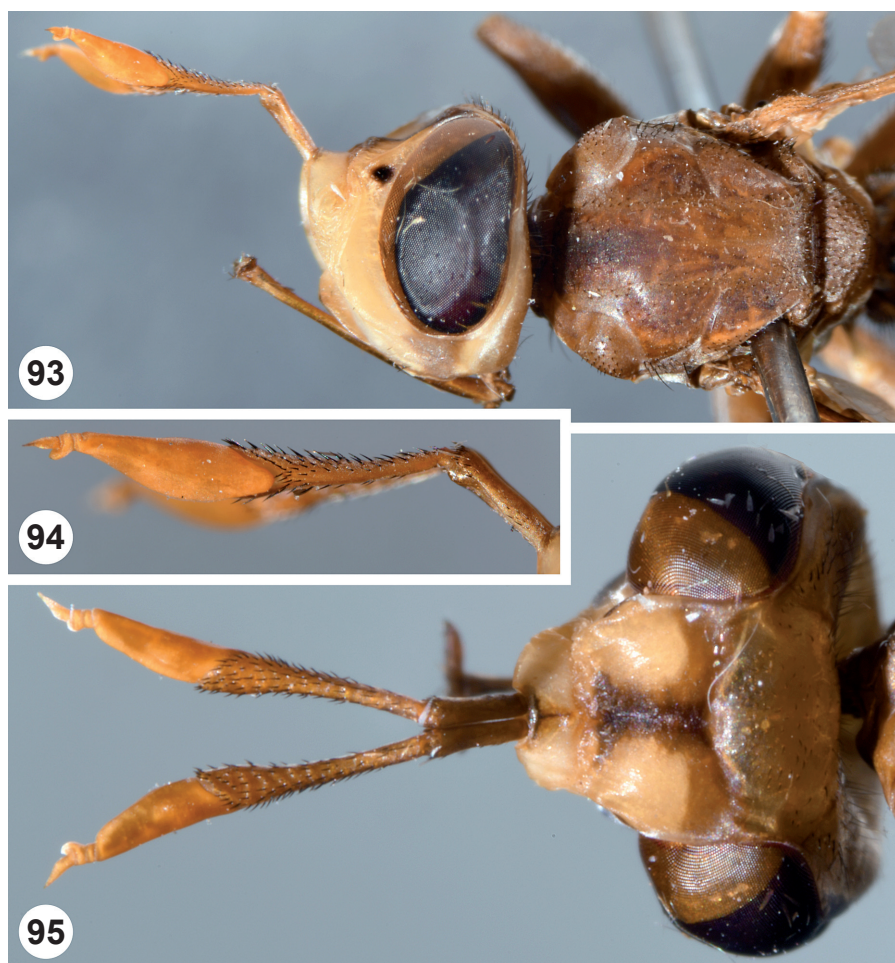
flagellomere about as long as pedicel, ventrally with barely visible membranous area and without setae dorsally. Lunule between base of antennae and ptilinal suture distinctly developed, longer than width of scapus. Eyes brown, without ommatrichia. Facets in middle of medial margin distinctly enlarged compared to surrounding facets. Posterior margin of eye convex, with indistinct indentation. Genal height of head/eye height (measurements taken from head in lateral view) = 0.2. No ocellar tubercle and no ocelli evident. No ocellar triangle evident. Frons (Fig. 95) shorter than broad, slightly concave and with anterior margin almost straight. Frons not projecting above eyes, lacking grooves and without setulae. Frons yellow with distinct brown hind margin and brown central stripe (Fig. 95), and slightly silver dusted. Distinct black frontofacial spots. Vertex slightly narrower than frons and separated from the latter by indistinct ridge. The ridge between vertex and frons without longitudinal grooves. Vertex covered with black setulae. Face yellow to

yellowish brown, without darker markings. Gena light brown. Parafacial and antennal grooves silver dusted. Facial ridge and gena only inconspicuously dusted. Gena without setulae. Distinct facial carina reaching from base of antennae to distinct broadened and outstanding frontoclypeal tubercle. Ptilinal suture stretching on either side beneath antennal bases. Mouth opening tapering dorsally. Postcranium



Figs 89–92: *Conops schachtii* n. sp., holotype: (89) habitus, lateral, view; (90) theca, lateral, view; (91) abdomen, dorsal view; (92) wing, dorsal view.

not obviously invaginated. Postcranium orange-brown. Adjacent to posterior margin of eye there is an obvious stripe of silver dusting, remaining postcranium slightly dusted. Postcranium with black setulae. No setulae on small area adjacent to eye margin and on bottom portion of postcranium. Postgena not widened and therefore not separated from occiput. Bottom portion of postcranium distinctly separated off. Proboscis orange-brown. Frontoclypeal membrane narrow, hardly broadened basally, orange-brown and clearly distinguished from clypeus. No palps recognised. Proboscis capitate. Labium distinctly longer than head length, distinctly thickened basally, anterior section completely fused into a tube. Labrum cannot be examined in holotype. Labellum short, completely divided, slightly broader than adjacent



Figs 93–95: *Conops schachtii* n. sp., holotype: (93) head, lateral view, scutum, dorsal view; (94) antenna, lateral view; (95) head, dorsal view.

haustellum, and covered with isolated short black setulae. Labellum with about 5 pseudotracheae.

Thorax brown and dark brown, without any black markings. Thorax slightly silver dusted all over, dusting strongly depending on viewing angle. Distinct dusted stripe reaching from middle coxa to notopleuron. Presternum distinct, only slightly smaller than compound basisterna with which it is fused. Basisternum broad, not narrowed to tip, without setulae. Proepisternum with 2 black setae and 2 smaller setulae. Mediotergite convex, without setae, and projecting distinctly over scutellum. Subscutellum inconspicuous. Scutellum small, with scattered black setulae and 2 scutellar setae, which barely stronger than black setulae. Scutum with short black setulae, no setulae medially and sublaterally. Setae cannot be distinguished from long black setulae on scutum. 1–2 long black setae dorsally on katepisternum, none ventrally. Metakatepisternum without setae. Anepisternum and anepimeron without setae or setulae. Wing generally tinged brownish, more intensely at tip, with obviously yellowish anterobasal area (Fig. 92), which is seen best when looking from wing tip, and encompasses subcostal cell *sc*, radial cell r_1 , base of radial cell r_{2+3} , basal radial cell *br* and base of basal medial cell *bm*. Veins in this area yellow too, contrasting with brown veins outside this area. Wing completely covered with microtrichia. Basal-medial-cubital crossvein *bm–cu* very short and incomplete. Veins R_1 and R_2 terminate close to each other in costa, well beyond end of subcosta. Vein R_{4+5} with shallow, even curve in distal section directed towards wing tip. Cell r_{4+5} pedunculate, with vein $R_{4+5}+M$ distinctly expressed and longer than *r–m* crossvein. Cubital cell *cup* elongated (distinctly longer than vein A_1+CuA_2) and pointed distally (cubitus CuA_2 and anal vein A_1 meet at an acute angle). Cubital vein CuA_1 and crossvein *bm–cu* separated. Upper and lower calypters yellowish white, upper calypter with long white setulae on margin. Alula broad, about 2× broader than long, with short setulae on posterior margin. Obvious vena spuria in radial cell r_{4+5} . Haltere yellowish white with light brown base. Base and stem of haltere each with areas of sensilla. No black setulae recognised on haltere. Legs light brown, with silver dusting. Posterior surfaces of fore and middle tibiae with densely silver dusted fields. Legs with black setulae. Areas with dense golden-brown setulae ventrally at tip of fore tibia and with dense black setulae posteriorly at tip of hind tibia. Apical half of middle femur posteriorly with row of regularly arranged, long black setulae. Hind femur dorsally with slightly outstanding longer setulae at its tip. No preapical seta recognised. No setae ventrally on tibiae. Femora ventrally with rows of short, stout black setae. Fore and middle coxae without outstanding setae. Pulvilli whitish yellow. Claws yellow with distinct black tips. Empodium whitish yellow.

Abdomen in dorsal view markedly constricted in apical part by rapid reduction in width of tergite 3 towards apex. Abdomen brown with diffuse black midstripe on tergite 2. Tergite 3 black in anterior half. Abdomen with scattered, short black setulae. Tergite 2 without setae. Tergites 1+2 with a distinct narrow dusted hind margin, tergite 3 dusted in posterior half, tergites 4–6 completely lightly dusted;

syntergite 8+9 only dusted in anterior half. Tergites 1–3 fused but distinct from each other. The female holotype was not dissected, therefore the description of the postabdomen remains incomplete. Maximum width of abdomen at base of segment 3. Sternites 1–2 fused but still distinct. Sternites 3–4 not protruding ventrally. Tergite 5 and sternite 5 fused laterally to form syntergosternite, with obvious theca below. Theca long and distinctly protruding. Shape of theca as in Fig. 90. Anterior surface of theca without setulae. Posterior surface of theca with close-set short, blunt spicules, not or almost not arranged in horizontal lines. Sternite 6 almost completely covered with spicules that are not or almost not arranged in horizontal lines. Tergite 7 distinctly bent ventrally, and without longitudinal gap or any tooth. Tooth on syntergite 8+9 distinct, its base elongated anteriorly. Long setulae lateral to base of tooth long setulae. Paired cerci distinct.

Holotype: ♀ **The Gambia:** (1) “The Gambia / North Bank / Berending / 23.101999 / leg. W. Schacht”; (2) “Holotypus / *Conops / schachti* / spec. nov. ♀ / det. Stuke 2018” (ZSM). The specimen is pinned and in a very good condition (Fig. 95).

Remark: There are five triungulin larvae (Coleoptera: Meloidae) attached to the base of the proboscis.

Key 8: Identification of *Conops* s. str. from the Afrotropical Region.

- 1 Abdomen reddish brown with distinct and contrasting bright yellow band covering tergite 4 and hind third or so of tergite 3 (Fig. 67); no frontofacial spot; face and gena completely covered with shining dust; mediotergite with two submedial fields of 4–5 black setae; wing slightly tinged yellowish brown but without obvious markings; large, distinct species (wing length usually >12 mm) *C. flavicauda* (Bigot, 1880)
- Abdomen without distinct and contrasting yellow band; black frontofacial spot present; mediotergite without setae; gena partly without shining dust (Fig. 65); wing typically blackish apically, obviously contrasting with the almost completely hyaline basal radial cell br (Fig. 63); costa, subcosta and vein R₁ may be yellowish and obviously contrasting with black veins at wing tip (Fig. 63); smaller species (wing length <12 mm)..... 2
- 2 Silver dusting of antennal grooves restricted to ventral half; frons uniformly yellow; abdomen orange, with tergites 1–2 more or less black; scutellum black or orange-brown, mediotergite black 3
- Antennal grooves completely silver dusted; frons may have distinct markings; abdomen more or less black, with tergites 1–2 orange; scutellum orange to brown, without any black colouration, mediotergite variably coloured..... 4
- 3 Scutum orange-brown with blackish anterior patch and second blackish area immediately in front of the black scutellum (Fig. 88); antennae black to dark brown; proboscis black; ♀ theca unknown *C. pulcher* Camras, 2000
- Scutum may have three black lines fused in front of black scutellum (from re-description of ♂ holotype by Kröber (1915b)), or scutum with blackish anterior

- patch but lacking blackish patch in front of orange-brown scutellum (based on female reported here); antenna light reddish yellow; proboscis orange; ♀ theca large, in side view about as long as height of tergite 6 and about as broad as tergite 7..... *C. africanus* (Rondani, 1873)
- 4 Abdomen entirely light orange (Fig. 62); fore and middle tarsi appearing black to dark brown (due to dense black setulae) in contrast to lighter brown hind tarsi; ♀ theca narrow and elongate (Fig. 66)..... *C. aurantius* Brunetti, 1925
- Abdomen mainly brown to black; all tarsi brown; ♀ theca may be different... 5
- 5 Thorax with scutum and mediotergite uniformly brown; frons as in Fig. 95: with clearly marked brown posterior margin and a brown central stripe; scutum medially and sublaterally without black setulae; hind femur dorsally at its tip with several outstanding long black setulae; all femora ventrally with rows of small, stout, black setae; ♀ abdomen in dorsal view markedly constricted in apical part (Fig. 91); tergite 2 with almost no setulae..... *C. schachti* n. sp.
- Scutum at least with black spot, mediotergite black; frons different, without clearly brownish posterior margin; scutum entirely covered with black setulae in most species; hind femur may lack outstanding dorsal setulae; ♀ abdomen not constricted in dorsal view (Fig. 69); tergite 2 with black setulae..... 6
- 6 Scutum reddish brown with two black spots; abdomen black, only tergites 1+2 red brown laterally; ♀ theca small; projecting less than tip of postabdomen. [based on original description]..... *C. frontalis* Kröber, 1915
- Scutum completely brown or with different black colouration; abdomen more brownish, at least at tip partly brown; ♀ theca longer; projecting beyond tip of postabdomen (Fig. 70)..... 7
- 7 Scutum with large black central patch (Fig. 82); vertex anteromedially with obviously roughened surface (Fig. 83); apical aristomere much longer than basal and medial aristomeres together, and distinctly long pointed (Fig. 84); no distinct dusting stripe between middle coxa and notopleuron; scutum with black setulae all over; alula at outer marginal area broadly bare of microtrichia and without setulae on hind margin; hind femur dorsally without long, outstanding setulae; claws with very narrow black tip only; ♂ postgonite evagination with line of broad brown teeth at base (Fig. 81); ♀ theca with black setulae apically on anterior and posterior surfaces (Fig. 85)
- *C. pallidemarginatus* Kröber, 1936
- Scutum with small central blackish spot anteriorly (Fig. 74); vertex with uniformly smooth surface (Fig. 73); apical aristomere as long as basal aristomere only, not pointed (Fig. 76); distinct dusting stripe between middle coxa and notopleuron (Fig. 68); scutum without black setulae anteromedially and laterally; alula completely covered with microtrichia and with setulae on hind margin; hind femur dorsally at its tip with several outstanding setulae; claws with obvious black tip (Fig. 68); ♂ unknown. ♀ theca with black setulae apically only on the posterior surface (Fig. 70)..... *C. occultus* n. sp.

Subgenus *Smithiconops* Camras, 2000

Species of the subgenus *Smithiconops* can be identified using Key 9 (p. 332).

Conops (Smithiconops) gessorum Stuke, 2009

Material examined: **South Africa:** *Northern Cape:* 1♀, Jakkalsputs [28°38'S 18°54'E], 9–11.ix.1982, S. Louw (BMSA).

Conops (Smithiconops) guineensis Kröber, 1915

(Figs 96–100)

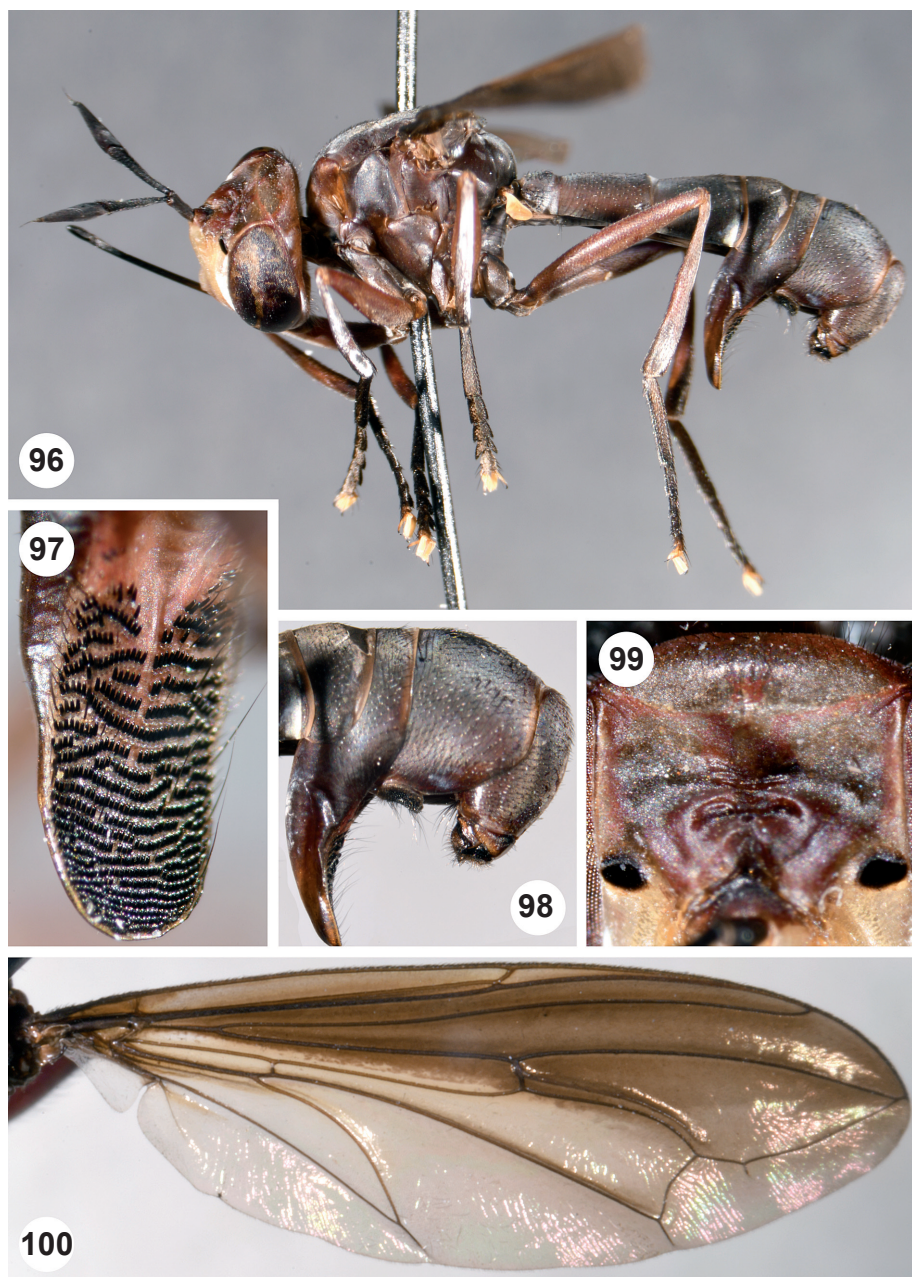
Conops guineensis Kröber, 1915b: 43.

Conops brunnipennis Kröber, 1915b: 50, **n. syn.**

Material examined: **Benin:** 1♀, Sérou, forest patch, ix.2005, G. Goergen (IITA). **Central African Republic:** 1♀, Bosum [probably Bozoum; 6°19'N 16°22'E], 18.v.1914, G. Tessmann, det. as “*Conops* nov. spec. aff *unicolor*” by Kröber, det. as *Conops nigritarsis* Brunetti by Camras 2000, det. as *Conops nigritarsis* by Stuke 2003 (ZMHB). **Democratic Republic of Congo:** 1♂, Bambesa, xii.1933, H.J. Brédo, det. as *C. brunnipennis* by Kröber 1935 (MRAC); 1♀, Bambesa xii.1933, H.J. Brédo, wrongly labelled as “Type”, det. as *C. brunnipennis* by Kröber 1935, (MRAC); 2♂, Bambesa, 30.x.1933, H.J. Brédo, det. as *C. brunnipennis* by Kröber 1935 (MRAC); 1♂, Eala, vi.1932, A. Corbisier, det. as *C. guineensis* by Camras 1962 (MRAC); 2♂, Massif Ruwenzori, riv. Lume, moyenne, affl. Semliki, 1830 m, 29.viii.1956, P. Vanschuytbroeck, det. as *C. nigritarsis* by Stuke 2003 (MRAC). **Kenya:** 1♀, Kericho, gallery forest near tea plantations, 8.ii.2011, M. Mei (PMME). **Nigeria:** 1♂, Ibadan, IITA, sweep netting in forest, xii.1998, G. Goergen (IITA). **Togo:** 1♂, Kloto, forest area [6°57'31.66"N 0°34'29.75"E], x.2007, G. Goergen (IITA); 1♂ 1♀, same, xi.2015; 1♀, same, x.2007; 1♂, same, xii.2007; 1♀, same, xi.2016. **Uganda:** 1♂ 1♀, West Mengo District, Entebbe, 1–15.v.1983, G.G.M. Schulten (RMNH).

Remarks: Using the key of Stuke (2003) the specimens reported here were identified as a mixture of *Conops* cf. *guineensis* and *Conops* cf. *nigritarsis*, with records of some of the specimens being published as one or other of these species. With more material to hand, however, it becomes evident that the coloration of the antenna character which was previously used to distinguish these two taxa is in fact variable and that only one species—*C. guineensis*—is involved. *Conops nigritarsis* was therefore misidentified by Stuke (2003), as discussed below.

Contrary to Stuke (2017), the holotype of *C. brunnipennis* is not deposited in the MRAC, but a specimen there is erroneously labelled as “type”. From the original description (Kröber 1915b) it is evident that the type was deposited in “Coll. Bequaert”; however, its recent depository is unknown. However, several specimens in the MRAC were identified by Kröber. From this material it can be seen that *C. brunnipennis* belongs to the subgenus *Smithiconops*. Kröber (1915b) distinguished *C. brunnipennis* and *C. guineensis* only by the dark colouration of the basal radial cell br. The material I have to hand shows this character to be variable, however; there are specimens with an almost hyaline br, with an almost dark brown cell br, and with some intermediate condition. The description of *C. brunnipennis* otherwise fits completely specimens of *C. guineensis*, and therefore *Conops brunnipennis* Kröber, 1915 should be placed as a junior synonym to *Conops guineensis* Kröber, 1915 (n. syn.).



Figs 96–100: *Conops guineensis* Kröber, 1915, ♀, Kericho: (96) habitus, lateral view; (97) ♀ theca, posterior view; (98) ♀ theca, lateral view; (99) frons, dorsal view; (100) wing, dorsal view.

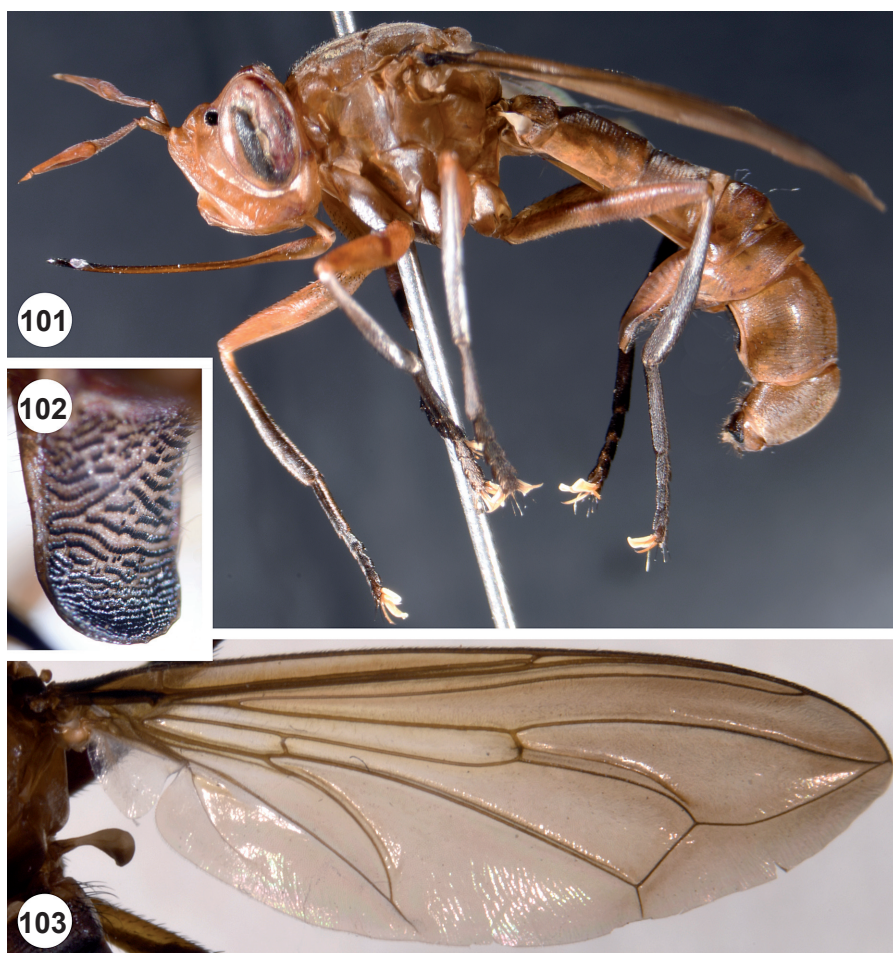
Conops (Smithiconops) nigratarsis Brunetti, 1925

(Figs 101–103)

Conops nigratarsis Brunetti, 1925: 101.*Conops conwayae* Stuke, 2003: 275, **n. syn.**

Syntype of *Conops nigratarsis* Brunetti, 1925 (examined): ♂ bearing following labels: (1) “Syn- / type”; (2) “Mt. Mlanje, / Nyasaland / 7.XII.1917 / S.A. Neave”; (3) “Press. by / Imp. Bur. Ent. / Brit. Mus. / 1924 - 306”; (4) “*Conops / nigratarsis / Brun. / Type ♂ / Det. E. Brunetti 1924*”; (5) “BMNH(E)# / 248968” (NHML).

Syntype of *Conops nigratarsis* Brunetti, 1925 (examined): ♀ bearing following labels: (1) “Syn- / type”; (2) “Mt. Mlanje, / Nyasaland / 20.XI.1917 / S.A. Neave”; (3) “*Conops / nigratarsis / Brun / Type ♀ / Det. E. Brunetti 1924*”; (5) “BMNH(E)# / 248969” (NHML).



Figs 101–103: *Conops nigratarsis* Brunetti, 1925, ♀, Arabuko Sokoke Forest: (101) habitus, lateral view; (102) ♀ theca, posterior view; (103) wing, dorsal view.

Material examined: Kenya: 1♀, Rabai, vii.1928, van Someren (NHML NHMUK013644282); 1♂, Sokoke Forest, 23.vii.1965, D.J. Greathead, det. as *C. nigritarsis* by Smith 1969 (NHML NHMUK013644277); 1♀, Coast Province, Arabuko-Sokoke Forest [3°25.21'S 39°53.81'E], sweep net, 21–24.vii.1999, R. Copeland (NMKE). **Malawi:** 1♀, Nyasaland, Mt. Mlanje [= Mulanje Massif], 3.xii.1912, S.A. Neave, des. as syntype of *C. nigritarsis* (NHML NHMUK013644292); 1♂, Nyasaland, Mt. Mlanje [= Mulanje Massif], 17.xii.1912, S.A. Neave, des. as syntype of *C. nigritarsis* (NHML NHMUK013644290); 1♂, Nyasaland, Mt. Mlanje [= Mulanje Massif], 23.xii.1912, S.A. Neave, des. as syntype of *C. nigritarsis* (NHML NHMUK013644291); 1♂, Nyasaland, Mt. Mlanje [= Mulanje Massif], 23.xii.1912, S.A. Neave, paratype of *C. nigritarsis* (NHML NHMUK013644276); 1♀, Nyasaland, Mt. Mlanje [= Mulanje Massif], 18.i.1913, S.A. Neave, des. as cotype of *C. nigritarsis* by Brunetti 1924 (NHML NHMUK013644281). **Mozambique:** 1♀, Delagoa Bay, 20.iv.1893, collector unknown, det. as *C. bipunctatus* by Kröber 1926 (MLUH); 1♀, Delagoa Bay, 25.vii.1907, collector unknown, des. as syntype of *C. nigritarsis* (NHML NHMUK013644293); 1♀, Delagoa Bay, 20.iv.1893, collector unknown, det. as *C. bipunctatus* by Kröber 1926 (MLUH); 1♀, Lourenço Marques [= Maputo], iv–vii., H.A. Junod, det. as *C. nigritarsis* by Camras 1962 (NHML NHMUK013644279). **South Africa: KwaZulu-Natal:** 1♂, “Natal”, no date, collector unknown, des. as syntype of *C. nigritarsis* (NHML NHMUK013644289); 1♀, “Natal”, no date, Dr. Martin (ZFMK); 1♀, Durban, no date, collector unknown, det. as *C. nigritarsis* by Camras 1999 (NHML NHMUK013644280). **Tanzania:** 1♂, Zanzibar, Nazi Moja, x–xii.1924, H.J. Snell, det. as *C. nigritarsis* by Bryant (NHML NHMUK013644278).

Remarks: This species was misinterpreted by Stuke (2003) and therefore erroneously redescribed as *Conops conwayae* Stuke, 2003 (n. syn.). The record from Uganda given by Stuke (2003) for *Conops nigritarsis* in fact refers to *C. guineensis*.

In the original description Brunetti mentioned five males and four females but he explicitly designated one male and one female as “Type”. Therefore, only these two specimens, both of which are definitely identified by the collecting dates given in the original description, are listed herewith as syntypes. Other specimens listed above are wrongly labelled as “paratype” or “cotype”.

Conops (Smithiconops) rondanii Bezzi, 1901

(Figs 104–108)

Conops rondanii Bezzi, 1901: 19.

Conops bipunctatus Loew, 1852: 659.

Conops zonatus Kröber, 1915b: 50.

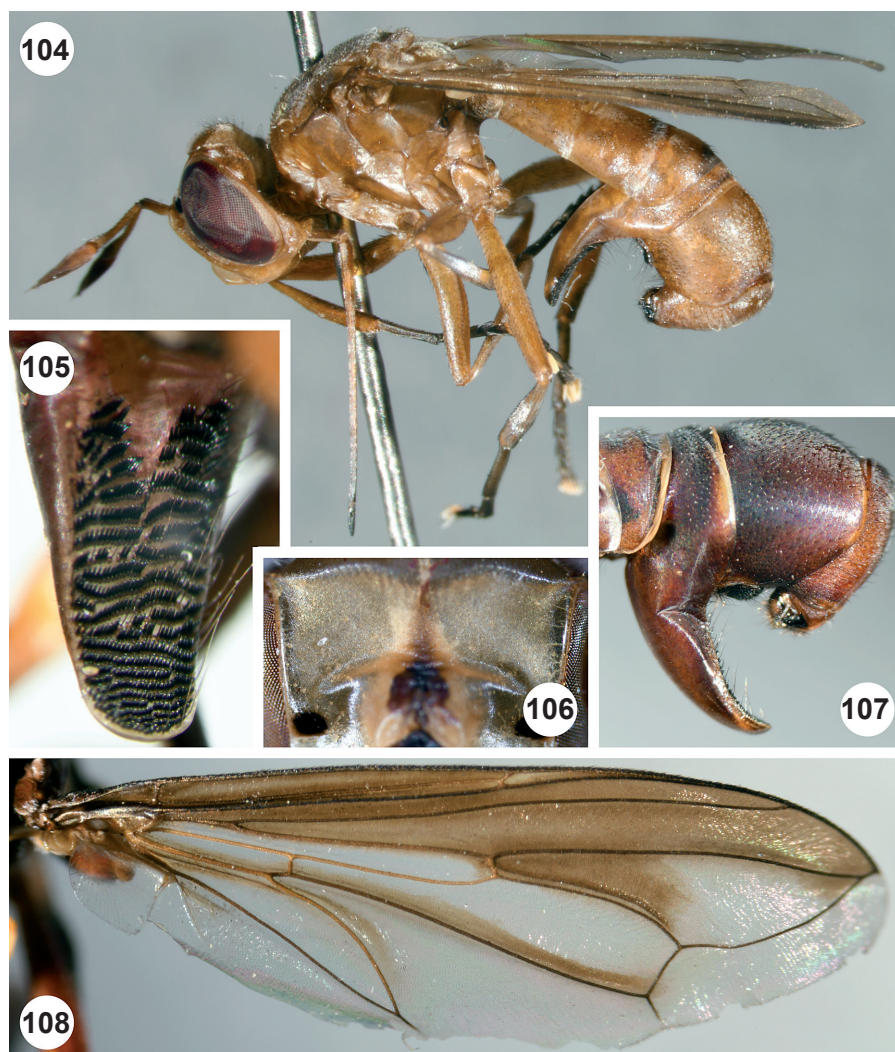
Conops affinis Kröber, 1915b: 51.

Conops betschuanensis Kröber, 1931: 83.

Holotype of *Conops bipunctatus* Loew, 1852 (examined): ♀ bearing following labels: (1) “3037”; (2) “Typus”; (3) “*Conops* / (*Smithiconops*) / *rondanii* / Stuke det. 2003” (ZMHB).

Material examined: Benin: 1♂, Calavi, sweepnetting, 8.ix.2014, G. Goergen (IITA); 1♀, Togbin, shoreline [6°20'50.63"N 2°18'17.14"E], Malaise trap, x.2004, G. Goergen (IITA). **Burundi:** 1♂, Bubanza, colline, 7 km S Gihanga [3°12'S 29°18'E], 850 m, 9.iii.1952, F.J. François (ISNB); 1♂, same data, det. as *C. zonatus* Kröber by Janssen 1954 (ISNB). **Central African Republic:** 1♀, Uamgebiet, Bosum [probably Bozoum; 6°19'N 16°22'E], 25.vi.1914, G. Tessmann (ZMHB). **Democratic Republic of Congo:** 1♂, Congo da Lemba, i–ii.1913, R. Mayné (MRAC); 1♂, Congo da Lemba, i–ii.1913, R. Mayné, det. as *C. zonatus* by Brunetti 1925 (MRAC); 1♂, Congo da Lemba, iii–v.1913, R. Mayné, det. as *C. zonatus* by Brunetti 1925 (MRAC); 1♀, Kisantu, 1927, R.P. Vanderyst, det. as *C. zonatus* by Kröber 1935 (MRAC); 2♂, Kivu, Uvira, 16–23.iii.1953, P. Basilewsky, det. as *C. zonatus* by Camras 1962 (MRAC); 2♂, Kivu, Uvira, 21.iii.1958, G. Marlier, det. as *C. zonatus* by Camras 1962 (MRAC). **Ethiopia:** 1♀, Arba-Minch, Lake Chamo [5°55'N 37°32'E], 1138 m, 19.ix.2012, A. Pauly (ISNB); 1♂, Oromia, Abijata Shala National Park [7°28'N 38°39'E], 1635 m, Brassica, 15.ix.2012, A. Pauly

(ISNB). **Kenya:** 1 ♀, Hunter's lodge near Kiboko springs [02°14'S 37°43'E], Malaise trap, 10.viii.2003, L. Friedman (SMNHTAU); 1 ♂, Mombasa, iv.1928, van Someren, det. as *C. aurantius* by Kröber 1931 (NHML NHMUK013644285); 1 ♀, Takaungu [3°42'S 39°49'E], 20 m, 17.ix.2005, L. Gahanama (SMNHTAU); 2 ♂, Taveta envir., 16.iv.2004, M. Snížek (CULSP); 1 ♂, Tsavo East National Park, near Athi River [2°37'S 38°22'E], Malaise trap, 10.vi.1998, R. Copeland (NMKE); 1 ♂, Coast Province, Muhaka Forest [4°19.47'S 39°31.45'E], Malaise trap, 13–20.x.1999, R. Copeland (NMKE); 1 ♂, Coast Province, N edge of Arabuko Sokoke forest [UTM 37M607257 9644873], 83 m, 24.v.2006, P. Cerretti,



Figs 104–108: *Conops rondanii* Bezzi, 1901: (104) habitus, lateral view, ♀, Kosi Bay Nature Reserve; (105) ♀ theca, posterior view, ♀, Windhoek; (106) frons, dorsal view, ♀, Gemsbok National Park; (107) ♀ theca, lateral view, ♀, Gemsbok National Park; (108) wing, dorsal view, ♀, Gemsbok National Park.

D. Avesani, G. Carpaneto, G. Nardi (PMME); 1♂, same, 28.v.2006; 1♀, Rift Valley Province, Mpala research Station [0°19'N 36°53'E], Malaise trap, 16.xi–22.xii.1998, S. Miller (NMKE). **Malawi:** 1♀, Nyasaland, Fort Johnston [= Mangochi], vii.1928, P. Rendall, det. as *C. bipunctatus* by Kröber 1938 (NHML NHMUK013644283). **Mozambique:** 1♂, Manica Province, 65 km W Chimoio, 10–11.xii.2003, J. Halada (PJHS); 1♀, same, 10–11.xii.2003. **Namibia:** 1♂, 20 km SW Otavi, 27.i.1993, M. Schwarz (PJHS); 1♀, 25 km E Rundu, 30.i.1993, M. Schwarz (PMHA); 1♂, 25 km N Windhoek, 27.i.1993, M. Schwarz (PJHS); 3♂, Buffalo Base, West Caprivi Park [18°08'S 21°41'E], 3–5.iv.1990, E. Marais (SMWN); 1♂, same, 3–5.iv.1990; 1♀, Kaudom Game Park, Cwiba River [18°26'18"S 20°42'49"E], sweeping grassy flood plain, 30.xii.1998, A.H. Kirk-Spriggs (SMWN); 1♀, Okahandja, 11.ii.1993, M. Schwarz (PJHS); 1♂, Otavi, 27.i.1993, J. Gusenleitner (PMHA); 1♂ 1♀, Ougali River, West Caprivi Park [18°01'S 22°18'E], 7.iv.1990, E. Marais (SMWN); 1♂, Popa Falls, Kavango [18°07'S 21°04'E], 26.ii–2.iii.1992, E. Marais, M. Pusch (SMWN); 1♀, same, 26.ii–1.iii.1992; 2♂, Popa Falls, Kavango [18°07'S 21°04'E], light trap, 26.ii–2.iii.1992, E. Marais, M. Pusch (SMWN); 2♂, Simanya Okavango River [17°33'17"S 18°32'33"E], Malaise trap, river forest, 23–24.i.1998, A.H. Kirk-Spriggs, E. Marais (SMWN); 2♂ 1♀, Waterberg Plateau Park, Onjoka, SE2017Ad, light trap, iv.1992, S.V. Green (SMWN); 1♀, West Caprivi Park, Qugali River [18°01'S 22°18'E], 7.iv.1990, E. Marais (SMWN); 1♀, Windhoek, Regensteein 32, SE2217Ca, 6.iii.1973, no collector, (SMWN); 1♀, Erongo Province, Usakos [21°58'S 15°36'E], 900 m, Malaise trap, 14.iii.2014, J. Halada (CULSP); 1♂ 1♀, Gobabis District, Somerkoms 521 [22°01'59"S 19°57'22"E], Malaise trap, 6–8.ii.2001, A.H. Kirk-Spriggs, E. Marais (SMWN); 1♀, Katima Mulilo District, Salambala Camp Site [17°50'01"S 24°36'09"E], Malaise trap, 1–4.iii.2001, A.H. Kirk-Spriggs (SMWN); 1♂, Katima Mulilo District, Salambala Pan [17°50'00"S 24°35'58"E], Malaise trap, 1–4.iii.2001, J. Halada (SMWN); 3♂, Namibia central, S Okaseswa [22°34'53"S 18°11'15"E], 1550 m, 12–17.ii.2010, J. Oehlke (PASS); 3♂, Omaheke Region, Gobabis, 40 km W Witvlei, 16.ii.1990, M. Schwarz (PMHA); 1♂, Rundu District, Mile 46 [18°18'39"S 19°15'29"E], Malaise trap, 25–27.iii.2003, A.H. Kirk-Spriggs (SMWN). **Sierra Leone:** 1♂, Magbosi, 29.x.1991, G.G.M. Schulten (PJHS). **South Africa:** *Northern Cape:* 1♀, Kalahari Gemsbok National Park, Nossob [25°24'S 20°34'E], 27.iii.1990, M. Schwarz (PMHA); 1♀, Kalahari, Gemsbok National Park, Nossob River bed, 20 km S Nossob Rest, 8.iii.1990, F.W. Gess, S.K. Gess (AMGS); *Gauteng:* 1♀, Florida [26°11'S 27°55'E], 15.i.1967, C.H. Draper (PMHA); *KwaZulu-Natal:* 1♀, Kosi Bay Nature Reserve [26°57'17"S 32°49'27"E], 82 m, Malaise trap, woodland savanna, 13–17.xii.2010, A.H. Kirk-Spriggs (BMSA); 1♀, Ndumo Game Reserve, main road [26°54.288'S 32°17.974'E], Malaise trap, sand and broad leafed deciduous forest, 4–8.xii.2009, A.H. Kirk-Spriggs (BMSA); *Eastern Cape:* 1♂, 25 km N Jansenville [32°49'S 24°44'E], 600 m, 4.i.2010, J. Halada (CULSP); 1♀, Grahamstown, Hilton, on blue flowers of *Anchusa capensis*, 18.xi.1977, F.W. Gess (PJHS); 1♀, Grahamstown, Hilton, sandpit, *Phyllopodium*, 3.iii.1978, F.W. Gess (PJHS); 1♀, Grahamstown, Hilton, at pool below sandstone bank, 14.iv.1978, F.W. Gess (PJHS); 1♂, Grahamstown, Hilton, 2.xii.1979, D.W. Gess (AMGS); 1♂ 1♀, same, 9.xii.1982; 1♂, same, 6.xii.1985; 1♂, Grahamstown [33°19'S 26°32'E], 29.iii.1981, M.J. Pogrund (AMGS); 1♂, Grahamstown [33°16'18"S 26°31'07"E], 7.iv.2006, P. Weyl (AMGS); 1♀, Grootrivierberg range, 37 km NW Willowmore [33°11.46'S 24°09.51'E], 700 m, Malaise trap, 11–22.xi.1999, M. Irwin, E.I. Schlinger, F.D. Parker (PJHS); 1♂, Thomas Baines Nature Reserve [33°23'02"S 26°29'01"E], 16.ii.2007, A.K. Davidson (AMGS). **Tanzania:** 1♀, Dar es Salaam, Bahari Beach, 1.viii.1989, G.G.M. Schulten (PJHS); 1♂, Nyasasee [=Lake Nyasa], Langenburg [=Tukuyu], ii.1898, S. Fülleborn (ZMHB); 1♀, same, 3.x–4.xi.1898; 1♀, Zanzibar, Nungwi, 18.vi.1985, G.G.M. Schulten (PJHS); 1♀, same, Malaise trap (PJHS); 1♀, Kigoma Province, 25 km SSE Kasulu [4°44'S 30°11'E], 1200 m, Malaise trap, 28.xii.2006, J. Halada (CULSP). **Zimbabwe:** 1♂, 60 km NNW Bulawayo [19°41'S 28°21'E], 1200 m, 18–19.xii.2011, J. Halada (CULSP). **Unknown country:** 1♀, "D.O. Afrika [German East Africa], [?] Bourrola", 23.i.1905, S.G. Schröder (ZMHB); 1♀, no date, [characters illegible], collector unknown (NHML NHMUK013644284).

Key 9: Afrotropical species of *Conops* (*Smithiconops*).

- 1 Wing uniformly light to slightly infuscated, without dark fore margin and without distinct contrast between cell r_{2+3} and almost hyaline cell br (Fig. 103); veins with the exception of the costa c usually yellow; basal radial cell br more or less covered with microtrichia, alula mainly covered with microtrichia; antennal

- grooves completely covered with microtrichia and therefore strongly shining; ♀: theca (Fig. 102) shorter, almost rectangular.... *C. nigratarsis* Brunetti, 1925
- Fore margin of wing distinctly dark brown (Fig. 108); wing venation mainly dark brown to black (Fig. 108); basal radial cell br usually devoid of microtrichia, at least half of the alula without microtrichia; antennal grooves only lightly covered with microtrichia and therefore hardly shining; ♀: theca as in Fig. 105, longer and more tapered and with a rounded apex..... 2
 - 2 Pleura without dusting stripe; base of media vein M dark brown, not contrasting with costal and radial veins (Fig. 100); frons brown to black (Fig. 99); scutellum and abdomen brown to black, with tergites 1–3 more or less light yellow-brown laterally (Fig. 96)..... *C. guineensis* Kröber, 1915
 - Pleura with a more or less distinct dusting stripe between midcoxa and notopleuron (Fig. 104); base of media vein m yellow to yellow-brown, contrasting with the costal and medial veins (Fig. 108); frons in typical specimens yellow, with a more or less developed black midstripe (Fig. 106); scutellum usually orange to orange-brown but may be black, abdomen always more or less extensively orange to orange-brown..... 3
 - 3 No frontofacial spots; pleura completely or almost completely black; about half of the alula covered with microtrichia; tergite 2 extensively reddish
..... *C. gessorum* Stuke, 2009
 - Black frontofacial spots present (Fig. 106); pleura usually mainly orange-brown but may be black; less than half of the alula covered with microtrichia; tergite 2 may be almost completely black *C. rondanii* Bezzi, 1901

Conops, species not recognised

Conops brunnifrons Kröber, 1915

Conops brunnifrons Kröber, 1915b: 40.

C. brunnifrons was classified by Camras (2001) after examination of the type at MCSN as *Conops* s. str. This classification contradicts the original description in which Kröber (1915b: 40) notes “Stirn und Scheitel dunkelbraun, stark gefurcht” (frons and vertex dark brown, with strong grooves). *Conops* s. str. should have a smooth frons with no grooves. Camras (2001: 207) states (under *C. frontalis*) that *C. brunnifrons* has “not been correctly identified since originally described”. Camras (2001: 206) presents only a very short diagnosis for *C. brunnifrons*: “It is unique in having the mesonotum rufous below the transverse suture. The rufous area at the upper frons divided by a black midline, is also unusual”. These characters do not convince me that another species other than those included in Key 8 is involved. One specimen in the BMNH, which is a very bad condition, was identified by Kröber as *C. brunnifrons* and belongs in fact to *C. ferruginosus*. Another female specimen in the BMNH identified as *C. brunnifrons* by Kröber belongs to *Schedophysoconops longicornis*. Until the holotype is re-examined *Conops brunnifrons* remains nomen dubium.

Conops kerteszi Kröber, 1915

Conops kerteszi Kröber, 1915b: 46.

Conops kerteszi was placed as *Conops* s. str. by Smith (1980). This does not, however, fit Kröber's (1915b: 46) original description in which he stated: "Stirnstrieme braunrot, schräg quergefurcht" (frons stripe brown-red, obliquely cross-furrowed). The species also does not correspond to any of the endemic Afrotropical *Conops* s. str. because the original description states that it should have completely dusted genae ("Gruben und Wangenplatten rein silberweiß glänzend") and no yellow veins ("Adern stark, schwärzlich"). The type of *C. kerteszi* was in the HNHM and was probably destroyed in 1956 in the fire, and therefore *Conops kerteszi* should be regarded nomen dubium.

Conops nitidulus Bigot, 1891

Conops nitidulus Bigot, 1891: 375.

There is hardly anything known about this species. Bigot (1891) described the holotype from an unknown location in the "territoire d'Assinie" [Abissinia]. The holotype should be in the Verrall collection of the Oxford University Museum, but a recent search failed to find it (Pont pers. comm. 2018). An additional male was reported by Bezzi (1901) from "Mareb" [Mahreb] and Kröber (1915b) included the species in a key, although he did not examine any material and used only the information provided in the original description. The description itself was very short, and it is even impossible to recognise a subgenus. Therefore *Conops nitidulus* should be treated as nomen dubium.

Conops platyfrons Kröber, 1915

Conops platyfrons Kröber, 1915b: 47.

The depository of the holotype of *C. platyfrons* is unknown ("Koll. Bequaert") and it is impossible to identify the subgenus judging from characters in the original description. Kröber's (1915b: 36) main diagnostic character was "Kopf außerordentlich flach, platt. Hinterleib mit einer Tomentbinde, die letzten Ringe ganz tomentiert" (head extraordinarily flat, dull. Abdomen with a dusted band, the last segments completely dusted). A flat head has never been recorded in any known *Conops* species and could easily be a malformation. Only Camras (1962: 217) reported this species subsequently, stating: "The head on this specimen is flat, but not flatter than other species of this group. The colour of the abdomen is characteristic. The third tergite has a wide yellow pollinose band and a narrower band on the fourth tergite." This diagnosis fits several other species, however, and Camras did not explain how he was able to correctly interpret the original description of Kröber. The only solution at the moment is therefore to regard *Conops platyfrons* as nomen dubium.

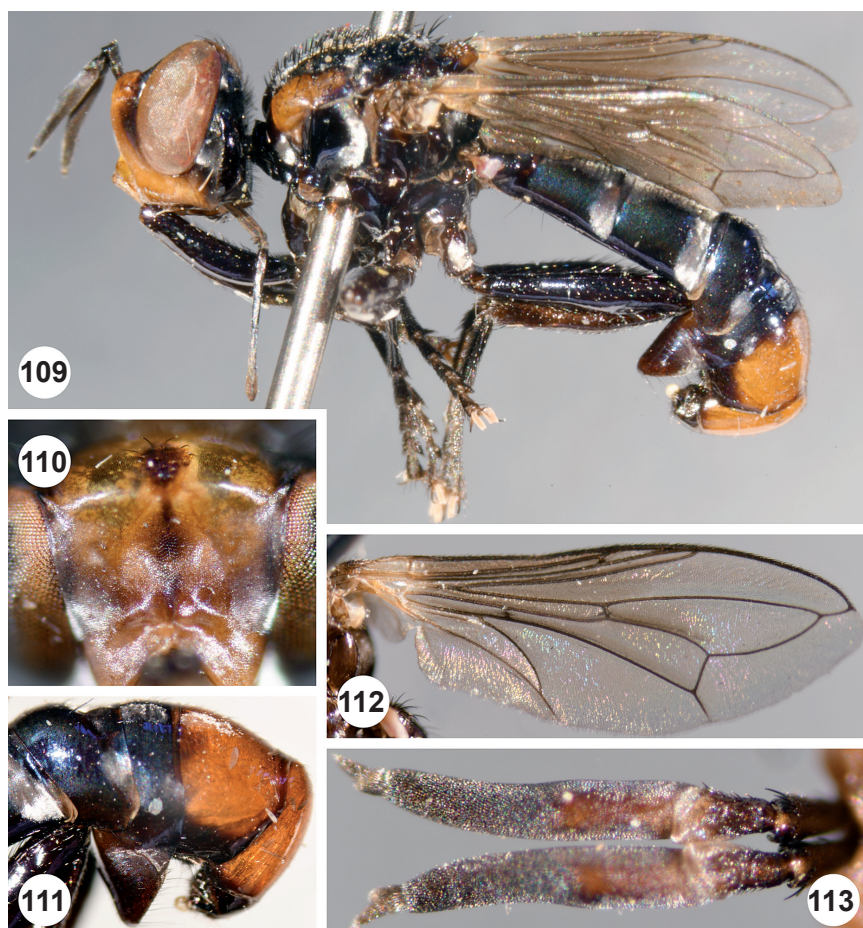
Genus *Euconops* Kröber, 1915

The most valuable diagnosis of this monotypic genus was given by Kröber (1915c, 1917). Additional records were published by Camras (2000). This unique genus is easily recognized by its shining metallic blue colouration (Fig. 109).

Euconops bellus Kröber, 1915

(Figs 109–113)

Material examined: South Africa: *Western Cape*: 1♂, Nieuwoudtville area [31°22'S 19°06'E], Calvinia district, 14.x.1964, B. & P. Stuckenberg, det. as *E. bellus* by Smith 1966 (NHML NHMUK010922081); 1♀, Gamkaskloof (Die Hel) [33°21.808'S 21°37.650'E], Malaise trap, Karoo and valley, *Acacia* wood-



Figs 109–113: *Euconops bellus* Kröber, 1915: (109) habitus, lateral view, ♀, Gamkaskloof; (110) frons, dorsal view, ♂, Duinepos; (111) ♀ theca, lateral view, ♀, Gamkaskloof; (112) wing, dorsal view, ♂, Duinepos; (113) antennae, dorsal view, ♂, Duinepos.

land, 16–18.x.2012, A.H. Kirk-Spriggs (BMSA); 1♂ 1♀, Matjiesfontein [33°13'51"S 20°34'55"E], 22–23.x.1928, R.E. Turner, det. as *E. bellus* by Kröber 1938 (NHML NHMUK010922082, NHMUK010922083); 2♂, West coast National Park, Duinepos [33°11.660'S 18°08.305'E], 0 m, Malaise trap, costal fynbos, 22–23.x.2012, A.H. Kirk-Spriggs (BMSA).

Remarks: *E. bellus* is endemic to South African Western Cape Province. A record from Mozambique was published by Camras (1962) and repeated in the catalogue listings of Smith (1980) and Stuke (2017). This record was corrected by Camras (2000).

Genus *Pleurocerinella* Brunetti, 1923

The identification of species in this genus was provided in the key by Stuke (2009), together with the addition and modifications given in Key 10 below (p. 341).

Pleurocerinella bartaki Stuke, 2009

Material examined: **Cameroon:** 1♀, Far-North Reg., Mayo-Tsanga, Mogode-Cha [10°34.111'N 13°36.422'E], 1001 m, Malaise trap, degraded savanna forest, 8–10.viii.2013, A.H. Kirk-Spriggs (BMSA). **Namibia:** 1♂, Gobabis District, Somerkoms 521 [22°01'59"S 19°57'22"E], Malaise trap, 6–8.ii.2001, A.H. Kirk-Spriggs, E. Marais (SMWN); 1♂, Windhoek District, Wasserfal [22°47'30"S 16°30'26"E], light trap, 25.ii.2004, A.H. Kirk-Spriggs, E. Marais (SMWN). **Togo:** 1♀, Kloto, forest area [6°57'31.66"N 0°34'29.75"E], Malaise trap, degraded savanna forest, viii.2008, G. Goergen (IITA).

Pleurocerinella haladai Stuke, 2009

Material examined: **Togo:** 1♀, Kloto, forest area [6°57'31.66"N 0°34'29.75"E], 16.v.2015, G. Goergen (IITA).

Pleurocerinella kirkspriggsi n. sp.

(Figs 114–124)

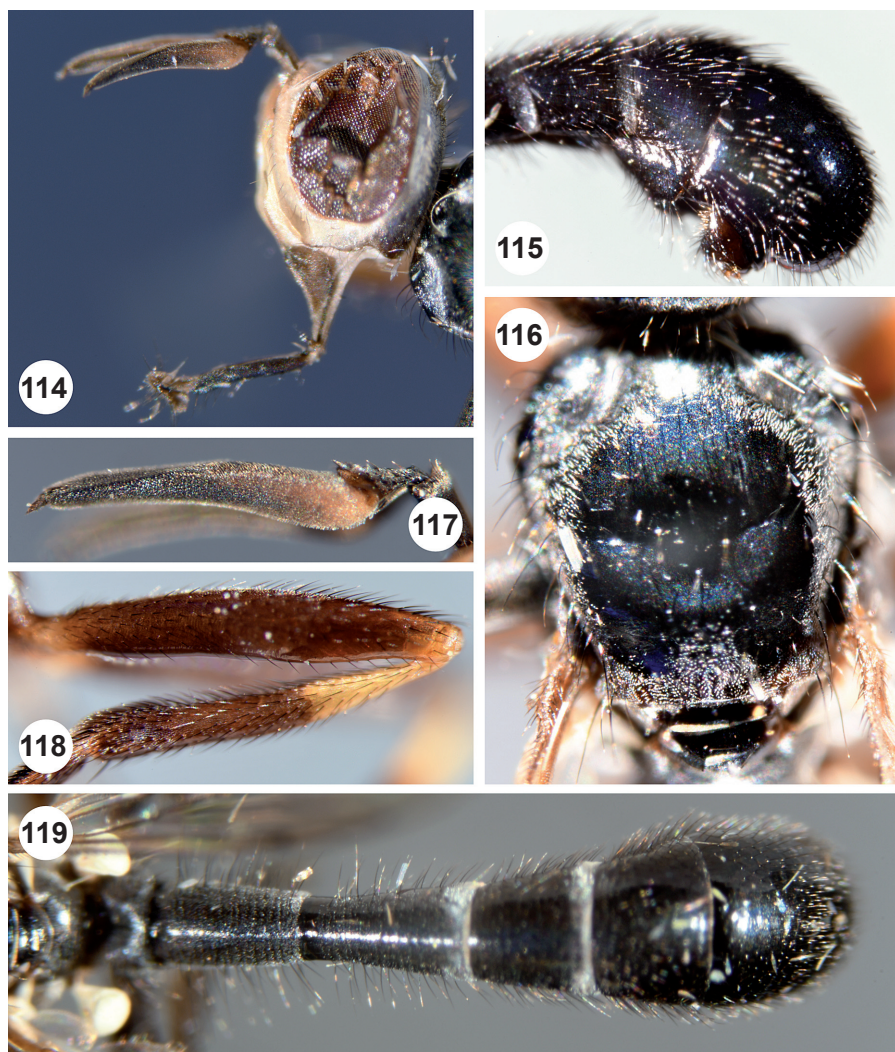
LSID: urn:lsid:zoobank.org:act:C87ACA97-EBA0-40B4-9F57-6198EE9D1E0A.

Etymology: This species is dedicated to Ashley H. Kirk-Spriggs (NHML), who collected part of the material of the new species, and who also provided a large amount of the Afrotropical Conopidae used in this study.

Diagnosis: *P. kirkspriggsi* is mentioned in Stuke (2009) as *Pleurocerinella* spec. 1. With more material at hand the species can be clearly defined now. It is easily recognised as one of the Afrotropical *Pleurocerinella* species having a medially shining scutellum, basal radial cell br without microtrichia and legs partly black. All these species are included in Key 10 below. *P. kirkspriggsi* can be identified within this group by the lack of black ventral setae apically on hind femur (Fig. 118), and in the male by the epandrium being broadly fused distal to cerci (Fig. 120) and the distiphallus at its base with an obvious spine which is elongated, hardly sclerotized basally and black apically (Fig. 121). The strongly sclerotised sack-like ventral protrusion of the vagina is diagnostic in the female (Fig. 124).

Description: Male (holotype): Length about 7.0 mm. Wing length 3.9 mm. Head height 1.1 mm.

Head without obvious setae. Antenna black, first flagellomere basally brown. Arista stylus-like, with 2 short aristomeres situated at tip of first flagellomere (Fig. 117). Both aristomeres minute, basal one shorter but extended ventrally. Apical aristomere with broad base and pointed apically. Scape about 2× longer than maximum width, apically with small black setae. Pedicel about as long as



Figs 114–119: *Pleurocerinella kirkspriggsi* n. sp.: (114) head, lateral view, holotype; (115) tip of abdomen lateral view, holotype; (116) scutum, dorsal view, holotype; (117) antenna, lateral view, holotype; (118) hind femur, anterior view, Little Berg Summits; (119) abdomen dorsal view, holotype.

scape, apically distinctly widened and completely covered with black setae. First flagellomere long, about 5× as long as high, pointed, without a membranous area ventrally, without setae dorsally. Lunule between base of antennae and ptilinal suture not developed. Eyes brown, without ommatrichia, facets all of about the same size. Posterior margin of eye convex without an indentation. Genal height of head/eye height (measurements taken from head in lateral view) = 0.2. Ocellar tubercle and three ocelli distinct. No ocellar triangle evident. Frons slightly longer than broad, straight, not projecting above the eyes and lacking any grooves. Frons without setulae, in basal half silver dusted. Anterior margin of frons concave. Frons blackish brown, with narrow yellow anterior margin. No frontofacial spots. Vertex narrow, separated from frons by indistinct ridge. Vertex covered with isolated black setulae and without any grooves. Face completely yellow. Parafacial, antennal grooves, and gena obviously silver dusted. Parafacial with line of short to minute black setulae. Facial carina reaching from base of antennae to large frontoclypeal tubercle. Ptilinal suture not stretching beneath the antennal bases. Mouth opening tapering dorsally. Postcranium not obviously invaginated. Postcranium black. Adjacent to posterior margin of eye there is a distinct stripe of silver dusting in ventral half only. Postcranium with black setulae. No setulae on a small area adjacent to eye margin and bottom portion of postcranium. Postgena not widened and therefore not separated from occiput. Proboscis black. Frontoclypeal membrane minute, black brown, and easy to distinguish from clypeus. Small brown palp, with 5 setae apically. Labium shorter than head length, not thickened basally, not fused into a tube, and with black setulae. Labrum as long as labium. Labellum short, obviously broader than adjacent haustellum, and covered with black setae.

Thorax black and slightly silver dusted all over, with the exception of shining central scutum (Fig. 116) and a shining patch on the katepisternum. Distinct dusting stripe reaching from middle coxa to notopleuron. Hind margin of postpronotum with distinct dusted patch. Presternum distinct, only slightly narrower than compound basisterna with which it is fused. Basisternum broad, not narrowed to tip, without setulae. Proepisternum without setae. Mediotergite convex, without setae, projecting distinctly over scutellum. Subscutellum inconspicuous. Scutellum small, no dorsal setulae visible, and with 2 pairs scutellar setae. Scutum with long black setulae. Setae cannot be distinguished from long black setulae on scutum. 1 long black seta posterodorsally on katepisternum, no seta ventrally on katepisternum. Metakatepisternum without setae. Anepisternum and anepimeron lacking both setae and setulae. Wing slightly tinged brownish all over, and mainly covered with microtrichia with these exceptions: basal medial cell bm completely without microtrichia, basal radial cell br basally without microtrichia, and radial cells r_1 and r_{2+3} basally without microtrichia. Basal-medial-cubital-crossvein bm-cu incomplete. Veins R_1 and R_2 terminate close together in costa, well beyond end of subcosta. Vein R_{4+5} with shallow and even curve in distal section directed towards wing tip.

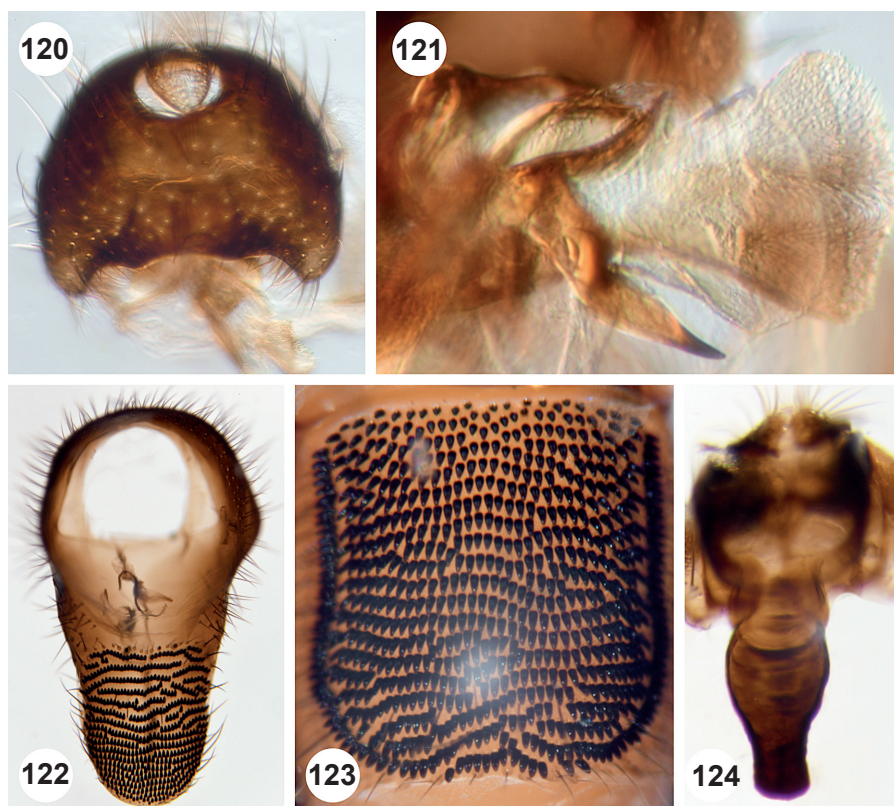
Radial cell r_{4+5} pedunculate, with vein $R_{4+5}+M$ distinctly expressed and longer than $r-m$ crossvein. Cubital cell cup elongated (distinctly longer than vein A_1+CuA_2) and pointed distally (cubitus CuA_2 and anal vein A_1 meet at acute angle). Cubital veins CuA_1 and crossvein $bm-cu$ distinctly separated. Upper and lower calypters yellowish white, upper calypter with long white setulae at margin. Alula broad (about $2\times$ broader than long), without short setulae on posterior margin. No vena spuria evident. Haltere white, with light brown base. Base and stem of haltere each with areas of sensilla. Knob of haltere without isolated black setulae but with a few minute black setulae on stem. Legs yellowish brown and black. Fore and middle femur black basally. Fore and middle tibia with indistinct and incomplete subapical black ring. Hind femur almost completely black. Hind tibia black in apical two-thirds. Legs without dusting. Posterior surfaces of fore and middle tibiae without any dusted fields. Legs with black setulae and without any obvious setae. Areas with dense silver setulae ventrally at tip of fore tibia, and with dense brown setulae ventrally and posteriorly at tip of hind tibia. Basal half of middle femur posteriorly without row of regularly arranged, long black setulae. Coxae without outstanding setae. Pulvilli whitish yellow. Claws yellow with distinct black tips. Empodium whitish yellow.

Abdomen black and covered with long black setulae that are erect on tergites 2–3 and semiadpressed on tergites 4–5 and protandrium. Abdomen slightly grey dusted. Tergites 2–4 with a narrow denser silver dusted hind margin. Tergite 1 with obvious black setulae laterally on bulbous projections. Tergite 2 elongate and about twice as long as broad, lateral margins almost straight. Tergite 2 without obvious lateral tufts of setulae. Sternites 1–5 present, sternites 1 and 2 to some extent fused but still distinguishable. Tergite 5 and sternite 5 distinctly separated. Sternite 4 narrow, about half the width of sternite 5, and with only a few inconspicuous setulae. Sternite 5 apically with a field of thick setae.

Male postabdomen (based on two dissected paratypes): Protandrium obviously broader than epandrium and therefore projecting over it. Sternite 8 hardly delimited from protandrium. Ventrally the lateral edges of protandrium are fused by a narrow, sclerotised strip. Paired indistinct, slightly sclerotised and covered with setulae. Epandrium as in Fig. 120, fused distally to cerci. Posterior margin of epandrium slightly convex, with long setulae and inconspicuous blunt submedial teeth. No hypoproct evident. Posterior and anterior surstyli reduced. Several medially directed long setulae arising from lateral edges of posterior margin. Subepandrial sclerite not sclerotised and therefore not evident. Dorsal hypandrial bridge developed. No hypandrial lobe evident. Hypandrial bars fused distally; hypandrium ending in hypandrial arm. Hypandrial membrane without microtrichia. Phallus sheath fused dorsally; without any teeth. Postgonite distinct. Postgonite evagination small, not sclerotised, not projecting above distiphallus and no microtrichia recognised. No plate at inner side of postgonite evagination. Ring sclerite developed. Epiphallus indistinct. Distiphallus small but distinct, not sclerotised and with scattered micro-

trichia only. At its base an obvious spine which is elongated, hardly sclerotized basally and blackish apically (Fig. 121). No lateral evaginations of distiphallus evident. Phalopodeme about as long as hypandrium arm. Ejaculatory apodeme with a large sclerotised base attached at the sperm sac and a smaller, granular muscle attachment.

Female. Female fits completely description of male with exception of female abdomen: Maximum width of abdomen at segment 6, with tergite 3 slightly narrower than tergite 4. Sternites 1–2 fused but still distinct. Sternites 3–4 not protruding ventrally. Posterior parts of sternites inconspicuous. Tergite 5 and sternite 5 fused laterally to form syntergosternite with large theca below. Theca as in Fig. 122. Anterior surface of theca with scattered small setulae. Posterior surface of theca almost completely covered with close-set, short, blunt spicules arranged in broken



Figs 120–124: *Pleurocerinella kirkspriggsi* n. sp., ♀, 50 km E Bossangoa: (120) epandrium, dorsal view, ♂, 60 km N Kondo; (121) spine on distiphallus, ♂, 60 km N Kondo; (122) theca, posterior view, ♀, 50 km E Bossangoa; (123) sternite 6, ventral view, ♀, 50 km E Bossangoa; (124) completely sclerotised sack-like ventral protrusion of the vagina, dorsal view, ♀, 50 km E Bossangoa.

horizontal lines, the latter being more densely arranged towards tip. Sternite 5 anteriorly without an elongation. Sternite 6 almost completely covered with short black spicules arranged in uneven horizontal lines, and with single palisade boundary row laterally (Fig. 123). Posterior part of sternite 6 bent at nearly right angle to middle part of sternite 6. Tergite 7 distinctly bent ventrally, without longitudinal gap, and without protruding tooth. Sternite 7 about as broad as wide, anteriorly slightly rounded. Sternite 8 fused with syntergite 8+9 and therefore connecting at its sides. Tooth on syntergite 8+9 distinct, its base elongated anteriorly. Laterally to base of the tooth long setulae on syntergite 8+9. Sternite 9 bulging posteriorly, covered with strong short black setae and with strong long setae on posterior margin. Paired cerci distinct. Sack-like ventral protrusion of vagina completely and strongly sclerotised, forming an obvious and unique structure in female postabdomen that has not so far been recognised in any other Conopidae (Fig. 124). One pair of round spermathecae only, spermathecal ducts fused shortly after leaving spermathecae and not sclerotised at spermathecae.

Variability: ♂ Wing length 3.7–4.3 mm. Anterior half of frons may be shining. Wing may be hyaline. Radial cell r_{2+3} can be completely covered with microtrichia. Legs may be almost completely orange-brown with the exception of the black to brown apical two-thirds of the hind tibia. Abdominal dusting and/or stronger dusting at hind margin of tergites 2–3 may be indistinct or missing, although this may be a result of wear or preparation.

Holotype: ♂ **Cameroon:** (1) “Malaise traps / degraded savanna / forest”; (2) “Cameroon: Far-North Reg. / Mayo Tsanga, Mogode-Cha / 10°34.111'N, 13°36.422'E / 8–10.viii.2013, 1001 m / A.H. Kirk. Spriggs”; (3) “Entomology Dept. / National Museum / P. O. Box 266 / Bloemfontein 9300 / South Africa”; (4) “Holotypus / *Pleurocerinella / kirkspriggsi* / spec. nov. ♂ / det. Stuke 2018” (BMSA). The specimen is pinned and in a very good condition.

Paratypes: **Cameroon:** 1 ♀, Far-North Reg., Mayo-Tsanga, Mogode-Cha [10°34.111'N 13°36.422'E], 1001 m, Malaise trap, degraded savanna forest, 8–10.viii.2013, A.H. Kirk-Spriggs (BMSA). **Central African Republic:** 1 ♀, 50 km E Bossangoa [6°28'N 18°02'E], 500 m, 27.v.2009, J. Halada (CULSP); 1 ♂, 90 km S Bozoum [5°39'N 16°37'E], 780 m, 30.v.2009, J. Halada (CULSP). **South Africa:** *Eastern Cape:* 1 ♂, Port Alfred [33.586°S 26.885°E], 20.iv.1958, C. Jacot-Guillarmod (AMGS). **Tanzania:** 1 ♂, Dodoma Province, 60 km N Kondua [4°36'S 35°46'E], 1570 m, 19.xii.2006, J. Halada (CULSP).

Distribution: The records presented here show a wide distribution of *P. kirkspriggsi* in the Afrotropical Region.

Key 10: Afrotropical *Pleurocerinella* species with a medially shining scutum, legs at least partly darkened and bare basal medial cell bm.

- 1 Basal radial cell br almost completely without microtrichia, at most some microtrichia along M and R_{4+5} and in apicalmost part of the tip; fore and middle legs uniformly light brown to orange; frons broadly dusted laterally, this dusting connected with dusting on face; hind femur apically with black ventral spines; ♂: epandrium margins indistinctly fused distal to cerci (Stuke 2009: 228, fig. 33); ♂: distiphallus with short black spine which has no broadened base (Stuke 2009: 228, fig. 29) *P. bartaki* Stuke, 2009

- Basal radial cell br at most with only basal half lacking microtrichia; fore and middle legs may be black basally; no broad lateral dusting on frons connecting with dusting of face; hind femur apically may have no black ventral spines; ♂: epandrium may be distinctly separated or broadly fused distal to cerci (Stuke 2009: 228, fig. 32); ♂: shape of distiphallus different (Stuke 2009: 228, fig. 29)..... 2
- 2 Hind femur apically with black ventral spines; ♂: epandrium distinctly separated distal to cerci (Stuke 2009: 228, fig. 32); ♂: distiphallus with less elongated mainly black spine (Stuke 2009: 227, fig. 27)*P. haladai* Stuke, 2009
- Hind femur apically without black ventral spines (Fig. 118); ♂: epandrium broadly fused distal to cerci (Fig. 120); ♂: distiphallus basally with elongated spine, hardly sclerotized basally and with blackish tip (Fig. 121)
..... *P. kirkspriggsi* n. sp.

Genus *Schedophysoconops* Gibson, 2013

The genus is monotypic and identification of the only included species is straightforward. The genus is included in Key 2 (p. 284).

Schedophysoconops longicornis (Kröber, 1915), n. comb.

(Figs 125–130)

Physocephala longicornis Kröber, 1915a: 95.

Physoconops longicornis (Kröber, 1915): Camras 2001: 207.

Conops rhodesiensis Brunetti, 1925: 111 : Camras 2001: 207.

Physoconops tetraspilotus Camras, 1962: 218; Camras 2000: 228.

Physoconops notatifrons Camras, 1962: 219, n. syn.

Holotype of *Physocephala longicornis* Kröber, 1915 (examined): ♂ bearing following labels: (1) “Daressalaam, / D. O. Afr. Ertl”; (2) “Type”; (3) “*Physocephala* ♂ / *longicornis* Kröb. / O. Kröber det. 1914”; (4) “J. Skevington / specimen # / 45421” (NMW).

Holotype of *Conops rhodesiensis* Brunetti, 1925 (examined): ♀ bearing following labels: (1) “Rusapi / S. Rhodesia / 19.12.1920 / Rhodesia Museum”; (2) “Press. by / Imp. Bur. Ent. / Brit. Mus. / 1924 - 306”; (3) “*Conops* / *rhodesiensis* / Brun. / Type ♀ / Det. E. Brunetti 1924”; (4) “*Physoconops* / *rhodesiensis* / Brunetti / det. Camras 1999”; (5) “BMNH(E)# / 248957” (NHML).

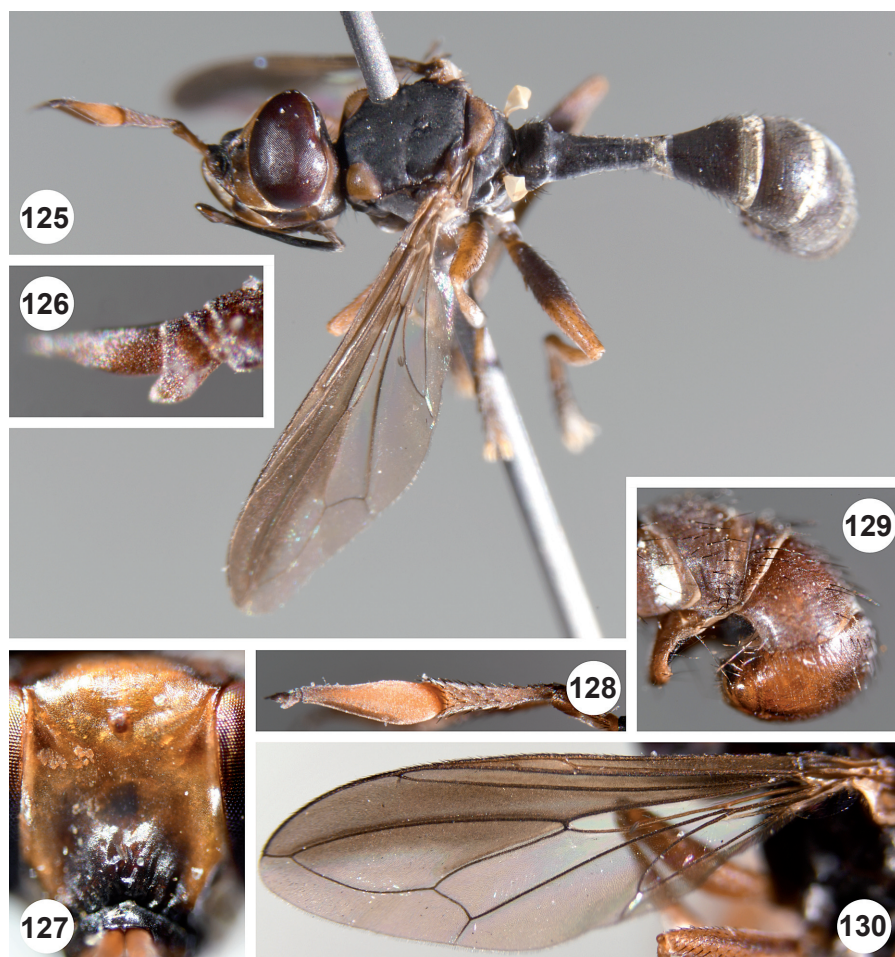
Holotype of *Physoconops tetraspilotus* Camras, 1962 (examined): ♀ bearing following labels: (1) “♀ / Holotypus”; (2) “Coll. Mus. Congo / Kivu : Uviara / 24–28/XII-1952 / P. Basilewsky”; (3) “Holotype ♀ / *Physoconops* / *tetraspilotus* / Camras”; (4) “RMCA ENT / 000012175” (MRAC).

Material examined: **Central African Republic:** 1♀, la Maboké (Mbaiki) [3.866°N 17.983°E], 25.x.1972, N’Gombé-Docko (ISNB). **Kenya:** 1♀, Rabai [3°57’S 39°34’E], viii.1930, van Someren, det. as *P. longicornis* by Camras 2000 (NHML NHMUK010922127). **Mozambique:** 1♂, Lourenço Marques [=Maputo; 25°57’S 32°33’E], i–iii.1914, H.A. Junod, des. as allotype of *Physoconops tetraspilotus* (NHML NHMUK010922125); **South Africa:** *KwaZulu-Natal:* 1♂, Monk’s Cowl Road, fern forest [29°00’14”S 29°24’59”E], 1298 m, 20.ii.2016, RSA-team Ståhls (PASS). **Zambia:** 1♂, 50 km W Chingola [12.458°S 27.809°E], 9–11.xii.2002, J. Halada (CULSP).

Remarks: Camras (2001) investigated the holotype of *Physocephala longicornis* Kröber, 1915, introduced the new generic combination *Physoconops longicornis* and placed *Conops rhodesiensis* Brunetti, 1925 as a junior synonym of that species. Gibson and Skevington (2013) transferred *Physoconops rhodesiensis* incorrectly to

Caenoconops, without stating on which material or on what new characters their conclusion was based. According to the characters in Key 2, *Conops rhodesiensis* Brunetti, 1925 belongs to the same genus as does *Physocephala longicornis*, that is *Schedophysoconops*, and is treated here as a junior synonym of the latter species. *Physoconops notatifrons* Camras, 1962 is also herewith placed as a junior synonym of *Schedophysoconops longicornis* (Kröber, 1915) (n. syn.).

I also concur with Camras (2000), who correctly synonymised *Physoconops tetraspilotus* with *Conops rhodesiensis* Brunetti, 1925.



Figs 125–130: *Schedophysoconops longicornis* (Kröber, 1915): (125) habitus, lateral view, ♂, Monk's Cowl Road; (126) arista, lateral view, ♂, Monk's Cowl Road; (127) frons, dorsal view, ♂, Monk's Cowl Road; (128) antenna, lateral view, ♂, Monk's Cowl Road; (129) theca, lateral view, ♀, Rabai; (130) wing, dorsal view, ♂, Monk's Cowl Road.

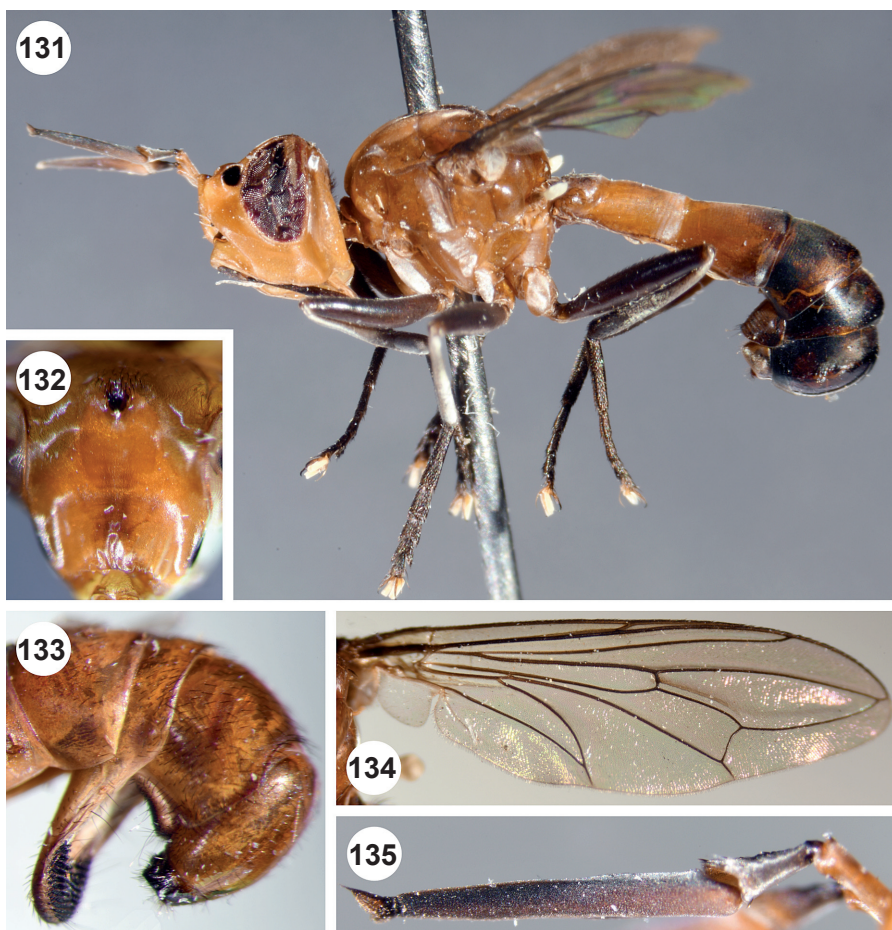
Genus *Tammo* Stuke, 2008

The genus and the only species has been recently described and illustrated in Stuke (2008).

Tammo rufus (Camras, 1955)

(Figs 131–135)

Holotype of *Euconops rufus* Camras, 1955 (examined): ♀ bearing following labels: (1) “Holo- / type”; (2) “Emali Range / Sultan Hamud / 4900–5900 ft. 3-40”; (3) “Pre. By / Com. Inst. Ent. / B. M. 1956-712.”; (4) “Holotypus ♀ / *Euconops / rufus / Camras*”; (5) “BMNH(E)# / “; 249052” (NHML).



Figs 131–135: *Tammo rufus* (Camras, 1955): (131) habitus, lateral view, ♂, Inhambana; (132) frons, dorsal view, ♀, SE Chimoio; (133) theca, lateral view, ♀, SE Chimoio; (134) wing, dorsal view, ♂, Inhambana; (135) antenna, lateral view, ♂, Inhambana.

Material examined: Mozambique: 1♂, Ponta da Barra near Inhambane [23.8444°S 35.4630°E], 14–18.xi.1997, J. Bosák (PJHS); 1♀, Manica Province, 70 km SE Chimoio [19.6172°S 33.8536°E], 23–24.xii.2003, J. Halada (CULSP); 1♂ 1♀, Lourenço Marques [= Maputo; 25°57'S 32°33'E], i.v.1914, H.A. Junod, det. as *E. bellus* by Camras 1962 (NHML NHMUK010922079, NHMUK010922080).

Tribe Tropidomyini Zimina, 1960

Genus *Tropidomyia* Williston, 1888

The only two known Afrotropical species of the genus *Tropidomyia* can be identified using Key 11.

Tropidomyia africana Camras, 2001

(Figs 136–138)

Holotype of *Tropidomyia africana* Camras, 2001 (examined): ♂ bearing following labels: (1) “*Tropidomyia / aureifacies*, Krb. / examined & det. / O. Kröber, 1938”; (2) “*Tropidomyia / aureifacies / Krb*”; (3) “E. Cape. Prov. / Katberg. / 1–10.ii.1933”; (4) “S. Africa. / R.E. Turner / Brit. Mus. / 1933-139.”; (5) “Holotype ♂ / *Tropidomyia / africana / Camras*” (NHML).

Material examined: Benin: 1♀, vi.2016, Sérrou, forest area [9°40'03.00"N 1°41'50.00"E], Malaise trap near stream and *Acacia* stand, G. Goergen (IITA). **Kenya:** 1♂, Nyanza Province, Ruma National Park, Nyati Campsite [0.65213°S 34.32370°E], 1240 m, Malaise trap near stream and *Acacia* stand, 12–26.ii.2006, R. Copeland (NMKE); 1♀, same, 18.xii.2005–1.i.2006 (NMKE).



Figs 136–138: *Tropidomyia africana* Camras, 2001: (136) wing, dorsal view; (137) ♀ theca, lateral view; (138) ♂ arista, lateral view.



Figs 139–141: *Tropidomyia ornata* Kröber, 1915, ♀, Mbalmayo: (139) wing, dorsal view; (140) ♀ theca, lateral view; (141) antenna, lateral view, with arista in lateral view (inset).

Tropidomyia ornata Kröber, 1915

(Figs 139–141)

Tropidomyia ornata Kröber, 1915c: 73.

Tropidomyia tuberculata (Brunetti, 1925: 102).

Holotype of *Physocephala tuberculata* Brunetti, 1925 (examined): ♂ bearing following labels: (1) “Holo- / type”; (2) “16”; (3) “Salisbury, / Mashonaland, / G.A.K. Marshall”; (4) “*Physocephala / tuberculata* / Brun. Type ♂ / Det. E. Brunetti 192”; (5) “Recd. In exch. / fr. / Mr Hugh Scott / 1924.279.”; (6) “*Tropidomyia / ornata* / Kröber / det. Camras 1999”; (7) “BMNH(E)# / 249165” (NHML).

Material examined: **Cameroon:** 1♀, Mbalmayo, *Stylosanthes homata*, ix.1998, G. Goergen (IITA). **Mozambique:** 1♂, Manica Province, 35 km SW Chimoio [19°08'S 33°09'E], 700 m, 14.xii.2005, J. Halada (CULSP). **Sudan:** 1♂, Nuba Mountains, Talodi, vi–viii.1921, Capt. F. Moysey, det. as *T. ornata* by Camras 2000 (NHML NHMUK010922172); 1♂, Torit, C. Muratori, 1947, collector unknown, det. as *T. ornata* by Camras 2000 (NHML NHMUK010922171). **Zimbabwe:** 1♂, Salisbury [=Harare; 17.84°S 31.05°E], iii.1900, G.A.K. Marshall (NHML NHMUK010922170).

Key 11: Afrotropical species of *Tropidomyia*.

- 1 Arista with two distinct segments (Fig. 141, inset); face orange, with golden to silver dusting; tergite 2 mainly orange-brown; radial cell r_{2+3} completely brown (Fig. 139); ♀ theca longer, as long as or exceeding the depth of tergite 5 in side view (Fig. 140); larger species (wing length <9 mm)....*T. ornata* Kröber, 1915
- Arista with only one distinct segment (Fig. 138); face yellow with black centre, silver dusted; tergite 2 black with a narrow brown hind margin; radial cell r_{2+3} hyaline medially (Fig. 136); ♀ theca shorter, less than depth of tergite 5 in side view (Fig. 137); smaller species (wing length <6 mm)*T. africana* Camras, 2001

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