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A REVISION OF AFROTROPICAL SPECIES OF THE *EUPYRGOTA* (DIPTERA, PYRGOTIDAE): THE *SPINIFEMUR* GROUP AND *LATIPENNIS* SUBGROUP OF SPECIES

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Ревизия афротропических видов рода *Eupyrgota* (Diptera, Pyrgotidae): группа видов *spinifemur* и подгруппа *latipennis*. Кorneyev В. А. — На основании изучения типовых материалов, описанных Ф. Уокером, Ф. Генделем, Ю. Брунетти и П. Вансхётбруком и исчерпывающих материалов из многочисленных энтомологических коллекций, представлены описания видов из группы *spinifemur* и подгруппы *latipennis* рода *Eupyrgota*, встречающихся в Афротропической области и на Аравийском полуострове. Установлена следующая синонимия. *Eupyrgota latipennis* (Walker, 1849), comb. n. (= *Oxycephala latipennis* Walker) = *Adapsilia ypsilon* Hendel, 1914, syn. n. *Eupyrgota spinifemur* (Hendel, 1934) comb. n. (= *Adapsilia spinifemur* Hendel) = *Metropina nigra* Vanshuýtbroeck, 1963, syn. n. *Eupyrgota saegeri* (Vanshuýtbroeck, 1963) comb. n. перемещена из *Lygiohypotyphla* Hendel.

Ключевые слова: Diptera, Cyclorrhapha, Tephritoidea, Pyrgotidae, *Eupyrgota*, Афротропическая область, фауна, таксономия, синонимия.

A Revision of Afrotropical Species of the *Eupyrgota* (Diptera, Pyrgotidae): the *spinifemur* Group and *latipennis* Subgroup of Species. Korneyev V. A. — Based on the study of the type specimens described by F. Walker, F. Hendel, E. Brunetti and P. Vanshuýtbroeck and exhaustive material from many entomological collections, species of the *spinifemur* group and *latipennis* subgroup of the genus *Eupyrgota* Coquillett occurring in the Afrotropical Region and Arabian Peninsula are redescribed. The following synonymy is established. *Eupyrgota latipennis* (Walker, 1849), comb. n. (= *Oxycephala latipennis* Walker) = *Adapsilia ypsilon* Hendel, 1914, syn. n. *Eupyrgota spinifemur* (Hendel, 1934) comb. n. (= *Adapsilia spinifemur* Hendel) = *Metropina nigra* Vanshuýtbroeck, 1963, syn. n. *Eupyrgota saegeri* (Vanshuýtbroeck, 1963) comb. n. is transferred from *Lygiohypotyphla* Hendel.

Key words: Diptera, Cyclorrhapha, Tephritoidea, Pyrgotidae, *Eupyrgota*, Afrotropical Region, fauna, taxonomy, new taxa, synonymy.

Pyrgotidae are medium to large-sized (4–18 mm) acalyprate flies, which usually can be recognized by pictured wings with short lobate cell *bcu*, rather slender body, oblique face, and stiletto-like aculeus that is much shorter than the oviscape. The World fauna includes about 365 valid species names in ca. 55 genera, with the greatest number of species in the tropics (Korneyev, unpublished data). Up to now, over 148 nominal species assigned to 24 genera, or almost one half of the described species of the family, were recorded from the Afrotropical Region (Steyskal, 1980). However, no comprehensive taxonomic revisions have been provided for the pyrgotids from the Oriental and Afrotropical Regions. Most paleotropical species are inadequately described and usually have not been figured, so they can be recognized only by comparison with type specimens.

M. Aczél (1956 a, b, c) and recently S.-K. Kim and H.-Y. Han (2000, 2001) and V. A. Korneyev (2004) elaborated the most comprehensive approach to diagnostics of the Pyrgotidae, which takes into consideration numerous morphological (including genitalic) characters, not used in description of Afrotropical pyrgotids.

While preparing the Catalogue of the Pyrgotidae of the World, material from the Afrotropical Region deposited in several African, European and American collections was examined. This study has shown that the family needs a thorough taxonomic revision based on studies of exhaustive material. This paper is the first in a series of publications resulting from study supported by the Belgian Federal Office for Scientific, Technical and Cultural Affairs Research Fellowship and conducted in the Royal Museum for Central Africa, Tervuren, Belgium in 2005–2006.

The present paper is divided into two parts. The first part concerns the *spinifemur* group of species, and the *latipennis* subgroup of the *latipennis* group of species. A revision of the *varipennis* and *melancholica* subgroups of the *latipennis* group of species, including descriptions of several new species and a key to Afrotropical species of the genus *Eupyrgota* shall be published in the next issue of this journal.

Material

The specimens examined in this study are deposited in the following collections: AMGS — Albany Museum, Grahamstown, South Africa; AMNH — American Museum of Natural History, New York, U.S.A.; BMNH — the Natural History Museum, London, U.K.; CMNH — the Carnegie Museum of Natural History, Pittsburgh, U.S.A.; DEI — Deutsche Entomologisches Institut, Müncheberg, Germany; FBUB — Fakultät für Biologie, Universität Bielefeld, Germany; HMNH — Hungarian Museum of Natural History, Budapest; RBINH — Royal Belgian Institute of Natural History, Brussels, Belgium; RMCA — Royal Museum of Central Africa, Tervuren, Belgium; NHMW — Naturhistorisches Museum Wien, Austria; NMKE — National Museums of Kenya, Nairobi; NMPM — the Natal Museum, Pietermaritzburg, South Africa; RNHL — Nationaal Natuurhistorisch Museum, Leiden, the Netherlands; SANC — South African National Collection of Insects, Pretoria; SIZK — Schmalhausen Institute of Zoology, Kyiv, Ukraine; SMNS — Staatliches Museum für Naturkunde Stuttgart, Germany; USNM — National Museum of Natural History, Smithsonian Institution, Washington, D. C., U.S.A.; ZMAN — Zoologisch Museum, Instituut voor Taxonomische Zoologie, Universiteit van Amsterdam, the Netherlands; ZMHB — Museum für Naturkunde der Humboldt-Universität zu Berlin, Germany; ZSSM — Zoologische Staatssammlung München, Germany.

The slash character (/) is used to separate lines, and the square brackets are for deciphered abbreviations in the literally cited labels. The non-type material is arranged alphabetically by country names, then from the West to the East and from the North to the South within each country; and finally, by the year, month and day of collecting; the collector(s) name(s) and the abbreviation of the depositary enclose the list of non-type specimens and are provided only once in the end if repeated.

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Classification of Pyrgotidae

The most detailed classification of the family was proposed by M. Aczél (1956 a, b, c), and modified by D. K. McAlpine (1990); it is subdivided into two subfamilies, Teretrurinae (two South American genera with four species) and Pyrgotinae, which includes the vast majority of genera and species. The Pyrgotinae are divided into two tribes: Toxurini from the Australasian Region, with more than 60 described species in at least six genera (tribal position of some genera is uncertain), and Pyrgotini with more than 275 species in 35–40 genera from all zoogeographical regions. The subfamily Lochmostylinae is now considered to be the family Ctenostylidae (McAlpine, 1990). G. C. Steyskal (1972) suggested that details of the structure of the postabdomen can provide a firm classification of the family. Recently, S.-K. Kim and H.-Y. Han (2000, 2001) and then V. A. Korneyev (2004) figured and described terminalia of Eastern Palaearctic pyrgotids. The further study of terminalia of Pyrgotidae (Korneyev, De Coninck, in prep.; Korneyev, in prep.) has the following taxonomic and phylogenetic implications.

In all examined Pyrgotini, the epandrium and lateral surstylus are completely devoid of setulae (at most, short setulae reminiscent of trichoid sensilla are developed on the surstyli). The Afrotropical genus *Toxopyrgota* Hendel, a few Australian genera of Toxurini that were studied (*Cardiacera* Macquart and *Neotoxura* Hendel), and Teretrurinae have a setose epandrium, as in other Tephritoidea. The absence of epandrial setulae is evidently universal for the Palaearctic, Oriental, Afrotropical and New World Pyrgotini. Another character, which is universal for all examined Palaearctic, Oriental and Afrotropical species of this tribe, is the presence of the **subocular dilation** of the parafacial, a sclerite below the ventral margin of the compound eye, separated

from the gena and occiput by a soft, non-sclerotized area, subdivided into the **genal groove** and narrow **postocular groove** (the latter character is apparently universal for all Pyrgotidae). All Teretrurinae, Toxurini, *Toxopyrgota* incertae sedis, Old World *Tephritopyrgota* Hendel, *Tephritocampylocera* Hendel, *Pyrgotina* Malloch (Pyrgotinae) and all New World species of Pyrgotini do not possess the subocular dilation, and the parafacial is gradually narrowed below the ventral side of the eye. In all examined Pyrgotinae the subgenae (narrow sclerotized stripes ventral to antennal grooves and anterior to the vibrissal edge and fronto-genal suture) are connected by the **supraclypeal sclerite** (mesofacial plate sensu Aczél, 1956 a), a bridge formed by a sclerotized portion of the fronto-clypeal membrane that has a triangular or pentagonal shape and is joined to the facial carina dorsally. In *Toxopyrgota*, a similar structure is membranous, and in Teretrurinae it is primarily absent, as the shape of face is entirely different (Korneyev, unpublished data).

The presence of the subocular dilation is a synapomorphy of several Old World genera (*Adapsilia* Waga, *Campylocera* Macquart, *Euphya* Wulp, *Eupyrgota* Coquillett, *Pyrgotomyia* Hendel, *Siridapha* Enderlein and some other minor genera related to them). If this group is considered a separate subtribe or tribe, a name should be derived from the available family-group name Adapsiloidi Rondani, 1869, which is considered now to be a synonym of Pyrgotini.

In this paper, I generally follow the concept of *Eupyrgota* Coquillett proposed by S.-K. Kim and H.-Y. Han (2001). Morphological terminology for the parts of the female terminalia follows White et al. (1999), rather than G. C. Steyskal (1972). The tergosternite 7 forms a large **oviscape**; its **antero-ventral apodeme** is often an unusually large flap reaching the dorsal side, connected by strong longitudinal muscles with the walls of oviscape and able to close up the whole anterior opening of the oviscape. In the distal, or **posterior margin** of the oviscape bordering the **eversible membrane**, some sclerotized lobes can be recognized, including two **medio-apical lobes**, the ventral (**ventro-medial lobe**) and often the dorsal (**dorso-medial lobe**) are extended onto the eversion membrane; at rest, they are inverted inside the oviscape. Each of two **lateral lobes**, symmetrical and usually developed on the ventral side, as a rule consists of a darker and softer **ventral field of mechanoreceptive sensilla**, visible even when the membrane is completely inverted, and of an elongate, **taenia-like stripe**, which extends on the membrane latero-ventrally and bears no sensilla. In *Eupyrgota*, there is a pair of **dorsal fields of mechanoreceptive sensilla** lateral to the dorso-medial lobe. The **eversible membrane** in some cases has paired fields of short acanthi forming a raspy-like structure posterior and between the ventro-medial and lateral lobes; from their topology, these structures may be derivatives of taeniae as seen in other Tephritoidea. In *Eupyrgota* they are modified into paired **hooks** (ovipositungui sensu Steyskal, 1972). The **aculeus** is unusually short compared to the oviscape, and very acute, with the cercal unit completely integrated into its apex without a trace of fusion, and the **8th sternite** (or the ventral lobes) narrow and rather soft.

Eupyrgota Coquillett, 1898

Type species: *Eupyrgota luteola* Coquillett, 1898, by original designation.

Diagnosis. Species of *Eupyrgota* can be recognized from the other Old World Pyrgotini by combination of the following characters: presternum bearing a pair of finger-like lobes, femora apico-ventrally with postero- and antero-ventral row of thickened setae (fig. 3, 4; 4, 10, 13; 7, 11) and the oviscape with a pair of heavily sclerotized hook-like lobes at apico-ventral margin (fig. 2, 4; 5, 5; 8, 1–2). The presence of finger-like lobes of the presternum is the unique character of *Eupyrgota*, which does not occur in other pyrgotid genera and supports its monophyly. The rows of spurious setae on the femora are known also in *Euphya* Wulp (Pyrgotini), *Epice* Paramonov

(Toxurini) and numerous taxa in the families Richardiidae, Tephritidae and Platystomatidae. Furthermore, in a few Oriental species of *Eupyrgota* they are poorly expressed. Species of both *Euphya* and *Epice* can be recognized by the saddle-like shape of the presternum without prominent lobes and the oviscap without hook-like lobes. Females of East Asian (Palearctic and possibly Oriental) species *Adapsilia hirtoscutellata* Hendel and *A. myopoides* Chen both have similarly sclerotized hook-like lobes of the oviscap, which have somewhat different position and are separated by a small sclerotized ventro-medial lobe or sclerite (Korneyev, 2004; Nartshuk, Korneyev, 2005: fig. 13–14). These species can be distinguished from *Eupyrgota* by the absence of finger-like lobes of the presternum and spur-like setae on the femora.

Description. Moderate or large (wing length 5.0–18.0 mm) wasp-like flies, often with moderately petiolate abdomen, yellow and brown coloration of body and wings with darkened band or two brown spots in anterior half. Head higher than wide, short or moderately long setose; ocelli absent; parafacial very short setulose, with subocular dilation; facial carina developed or absent; supraclypeal sclerite low to moderately high (at most 0.33 times as high as face); lateral vertical seta short or indistinguishable; antenna as long as face, flagellomere 1 almost as long as pedicel; palpus usually as long as flagellomere 1 (or slightly longer in some Oriental species), parallel-sided or apically expanded; labellum moderately large, fleshy; presternum bearing a pair of finger-like lobes; presutural supra-alar and prescutellar acrostichal setae absent; scutellum with 1–5 pairs of setae; wing with humeral and subcostal break present; costa reaching medial vein; Sc straight, narrowly broken before costa; R_{2+3} with spurious vein, except in few Oriental species; cell bm and bcu almost entirely bare, with faint yellowish tinge; Cu_2 short; halter yellow; midcoxa anteroventrally setose and setulose but without “comb” of setae; hindcoxa anteroventrally without “brush” of setae; fore and mid trochanters without or with “brushes” of short spine-like setae; femora ventrally with 2 rows of thickened, usually spine-like setae; female midfemur either with bare membranose femoral organ in its apical half, or lacking it entirely; hindtarsi in both sexes asymmetrical, with brushes of dense setulae on medial surfaces of tarsomeres; syntergite 1+2 in both sexes narrowed at middle; female with rather short, ventrally curved oviscap (not longer than remaining abdomen), bearing 2 sclerotized hook-like projections ventro-apically (except in one Oriental species), but without spinules or taenia-like sclerites on eversible membrane; aculeus short, flattened dorso-ventrally, with wide, bulky base and narrow stiletto-like apex; 3 oval, smooth spermathecae; in male hypandrium narrow, with gonites flap-like microtrichose; phallapodeme very narrow, vanes separate; ejaculatory apodeme fan-shaped; phallus without filaments of acrophallus, with paired, sometimes loop-like sclerites of praeputium.

Distribution. Species of *Eupyrgota* occur in the Palearctic, Afrotropical, Oriental and Australasian Regions (Papuan Subregion). A preliminary study of available material shows that there are up to 15 species of *Eupyrgota* in the Oriental and up to 6 in the Australasian Regions. The Palearctic fauna includes 9 species occurring in eastern Asia and one, *E. waga* (Bigot), in Central Asia and the Near East (see Korneyev (2004) and Nartshuk, Korneyev (2005) for references).

Taxonomy. In the Afrotropical Region, the genus is represented by two species groups. The first group consists of *E. spinifemur* (Hendel) and *E. saegeri* Vanschuytbroeck, with rather slender pale yellow body and legs, moderately long (6–8 mm) hyaline wings, a single pair of scutellar setae and small and weak hooks of the oviscap. The second group includes *E. latipennis* (Walker) and 8 related species, which share more numerous scutellar setae (two or more pairs), robust shape and reddish yellow to brown coloration of legs, grayish or brownish microtrichose wings usually with a brown preapical spot, body brownish red to dark brown, all setae (including ventral spines of femora) short, and the ventral hooks of the oviscap wide and strong.

Most characters, including chaetotaxy, wing venation and morphology of female and male terminalia, indicate that *E. spinifemur* is related to the Oriental and eastern Palearctic *E. facialis* Hendel. The species of the *E. latipennis* group are related to the eastern Asian *E. luteola*, the type species of the genus, by having short setae (including 2–3 pairs of scutellars), similar venation and pattern of the wing, and the shape of the terminalia in both sexes. *Eupyrgota scioida* Hendel, 1908 from the Moluccas (the type species of *Apyrgota* Hendel, 1909) also belongs in *Eupyrgota* (Korneyev, unpublished data), but further discussion of this nomenclatural problem, which involves several Old World species assigned to *Apyrgota*, beyond the scope of the current work. Afrotropical *Apyrgota marshalli* Hendel, 1914, however, is not congeneric with *E. scioida* and belongs elsewhere (Korneyev, personal observation).

spinifemur group of species

Head coloration variable, from entirely yellow to mostly brown; frontal vitta matt reddish yellow to brown with sparse, relatively long black setulae in anterior half; 1 pair of ocellar and 1 antero-medially directed orbital setae moderately long (0.3–0.4 times as long as eye); medial vertical seta almost as long as ocellar; frontal plate and parafacial, including subocular plate, strongly shining, smooth, with sparse and very small, indistinct setulae anterior to eye, entirely yellow, rarely with brown subocular spot or entirely dark brown (fig. 1, 2, 5; 3, 1, 3); antenna yellow to brownish yellow; scape with 8–12 black antero-dorsal setulae; pedicel elongate, twice as long as wide at apex, densely setulose; first flagellomere microtrichose, narrowly elliptic in outline, sometimes almost apex; face shining yellow, sometimes largely brown; medial carina entirely absent; antennal grooves fused; epiclypeal sclerite very low, 0.10–0.15 times as high as remaining face; frontogenal suture concolorous with face, yellow, seldom brown; parafacial 1.4–1.7 times as wide as 1st flagellomere in female, and conspicuously larger in male (1.9–2.0 times); gena 0.2–0.25 times as high as eye vertical diameter in female and 0.4 in male; postgena and occiput yellow, rarely with brown marks along vertex and occipital sutures, short microtrichose; median occipital sclerite with 0–4 postocellar setulae and 3–4 setulae at each dorso-lateral side; 5–7 fine and short supracervical setae on each side, half as long as other occipital setae; 30–40 occipital setae half as long as medial vertical seta setae; one tiny lateral vertical setula indistinguishable from 7–10 setulae of postocular row; mouth parts moderately large; palpus yellow, narrow oval, with short blackish setulae, not dilated apically, as long as 1st flagellomere.

Thorax more or less uniformly reddish yellow or, rarely, dark brown with notopleural triangle, anatergite and scutellum light yellow; postpronotal lobe with 0–2 postpronotal seta almost as long as vertical and ocellar setae surrounding setulae 1–7 setulae ca. half as long as and; mesonotum in short and sparse microtrichia not hiding underlying cuticle, with very sparse and short dark brown setulae; scapular setae poorly differentiated; 2, occasionally 1 notopleural, 1 supra-alar, 1 intra-alar and 1 post-alar setae present; 1 pair of scutellar setae; proepisternum with 1–5 setae as long as postpronotal seta and 0–5 setulae; anepisternum with 0–1 strong seta and 1–5 short black setulae at dorsal margin of prephragmal portion; katepisternum with 0–1 seta, 0–1 dorsolateral setulae and 1 ventral seta and 1–2 setulae at posteroventral margin; anepimeron with 0–1 anepimeral seta and 0–1 setulae.

Legs orange-yellow, sometimes partially brown; forecoxa with 5–6 fine setulae and 1–2 stronger setae; midcoxa with 2 setae on dorso-lateral part and 1–2 seta and 2–4 setulae on anteroventral margin; hindcoxa with 1 seta on dorsolateral part, and 5–7 setulae; trochanters with a few (2–5) setula, foretrochanter with basal posterodorsal seta; all femora short setulose dorsally, with one subequal basiventral seta, 1 slightly shorter seta at basiventral one-third of femora, and with short, thickened setae ventrally, forming subequal anteroventral and posteroventral rows in apical half. Midfemur of female with or without femoral organ.

Wing hyaline, sometimes with yellowish tinge along apical half of r_1 cell, often brownish around apical portion of R_{2+3} vein; the latter slightly arcuate before stump vein, then bowed anteriorly (fig. 1, *I*; 3, 5–6); R_{4+5} bare, ending at or slightly posterior of wing apex; vein M strongly bowed posteriorly. Upper calypter with 40–50 rather thin black ciliae.

Male abdomen brownish yellow, sometimes with posterior margins of tergites yellow, sparsely microtrichose and brown or black setulose; 1+2nd syntergite 1.4–1.5 times as long as tergites 3 and 4 combined, conspicuously narrowed in anterior 0.6 of its length; 5th tergite 0.5 times as long as 1+2nd syntergite.

Male postabdomen similar to that in *E. tigrina* Han et Kim (Kim, Han, 2005: fig. 6) with epandrium almost as high as long in profile, and wider than high; lateral surstylus covered with short setulae in posteroventral half; medial surstylus bar-like, slightly curved in ventral part; ejaculator conspicuously wider than long, like in *E. tigrina* (Kim, Han, 2005: fig. 6); phallus glans with loop-like sclerite of praepitium; proctiger dorsoventrally flattened, with short, but long setulose cerci separated by desclerotized membrane.

Female abdomen usually uniformly yellow or with brownish areas, sparsely microtrichose and black setulose, with 5–7 pairs of rather long marginal setae on each tergite; 1.1–1.2 times as long as tergites 3–6 combined; sternites 4–6 each with moderately short anteromedial apodeme (fig. 2, *I*–2); oviscapae (fig. 2, *I*–3; 3, 3–8) shining brownish yellow, smooth, with short blackish setulae, 0.75–0.8 times as long as preabdominal tergites combined; apicoventrally with a pair of weak, acute claw-like in outline, yellowish hooks, ventrally separated, without fields of trichoid sensilla lateral and 3–4 strong setulae inserted on base of hook; ventral side of oviscapae long, and in postero-medial part densely setose; aculeus (fig. 2, 6; 3, 10) basally widened, with long tapering apical part 3.5–4 times as long as its bulky base; 3 oval spermathecae (fig. 2, 5; 3, 9).

Remarks. Species of this group are closely related to *E. facialis* Hendel and *E. tigrina* Kim et Han, which share very similar wing venation, only one pair of scutellar setae and shape of epandrium and phallus. The two recognized species are very similar, differing by the presence or absence of the femoral organ and density of setae and setulae. They occur sympatrically (in Nigeria and Democratic Republic of Congo) and might represent different morphs of one polymorphic species; however, the known material does not give any solution of this problem.

***Eupyrgota saegeri* (Vanschuytbroeck, 1963) comb. n. (fig. 1, 2)**

Lygihypotyphla saegeri Vanschuytbroeck, 1963: 46; Steyskal, 1972: 3; 1980: 559.

Type material. Holotype ♂ *Lygihypotyphla saegeri*: **Democratic Republic of Congo**: “Congo Belge, P.N.G. [Parc National Garamba] / Miss. H. De Saeger / II/fd/4, 3–VI–1952 / H. De Saeger, 3694 [Savane herbeuse, I.C. 8–11 a.m., fauchages des Graminées rudérales bords de sentiers]”, “P. Vanschuytbroeck det. / *Lygihypotyphla* / *saegeri* n. sp. / Holotypus [red paper label]”, “Type [pink carton label]”, (RMCA) (head glued; antennae and 4 legs missing; abdomen dissected and pinned in microvial). Paratype ♀: **Democratic Republic of Congo**: “Congo Belge, P. N. G. [Parc National Garamba] / Miss. H. De Saeger / PFSK. 22/8, 10–VI–1952 / H. De Saeger, 3608 [Tête de source boisée, I. A. 9–12 a. m., Fauchage de la strate d’Herbacées sciaphiles]”, “P. Vanschuytbroeck det. 1962 / *Lygihypotyphla* / *saegeri* n. sp. / Para- / type [red paper label]”, ♀ (De Saeger) (RBNH).

Non-type material. **Côte-d’Ivoire**: “Bouafle. Parkement / Hotel. 19.04.1989 / 06°59’N : 05°45’ W / around hotel lights / at night”, ♀ (Londt) (NMPM); **Nigeria**: Zaria: Samaru, at light, 13.06.1966, ♀; “m.[ercury] v.[apour lamp] trap”, 31.05.1967, ♀; 12.06.1967, ♀; 24.06.1967, ♀; 26.06.1967, 3 ♀; 1.07.1967, ♀; 10.07.1967, 2 ♀; 18.05.1968, ♀; 12.06.1968, ♀; 18.06.1968, ♀; 20.06.1968, ♀; 24.06.1968, ♀; 24.06.1968, ♀; 26.06.1968, 3 ♀; 1.07.1968, ♀; 14.07.1968, ♀; 3.06.1969, ♀; 25.05.1972, ♂; 4.06.1972, ♀; 10.06.1972, ♂, ♀; 11.06.1972, ♀; 16.06.1972, ♀; 18.06.1972, ♀; 19.06.1972, ♀; 7.07.1972, ♀ (Deeming) (USNM).

Diagnosis. This species can be easily differentiated from other species of *Eupyrgota* by face concave, without facial carina; female midfemur without femoral organ. See also redescription of *E. setifemur* for comparison.

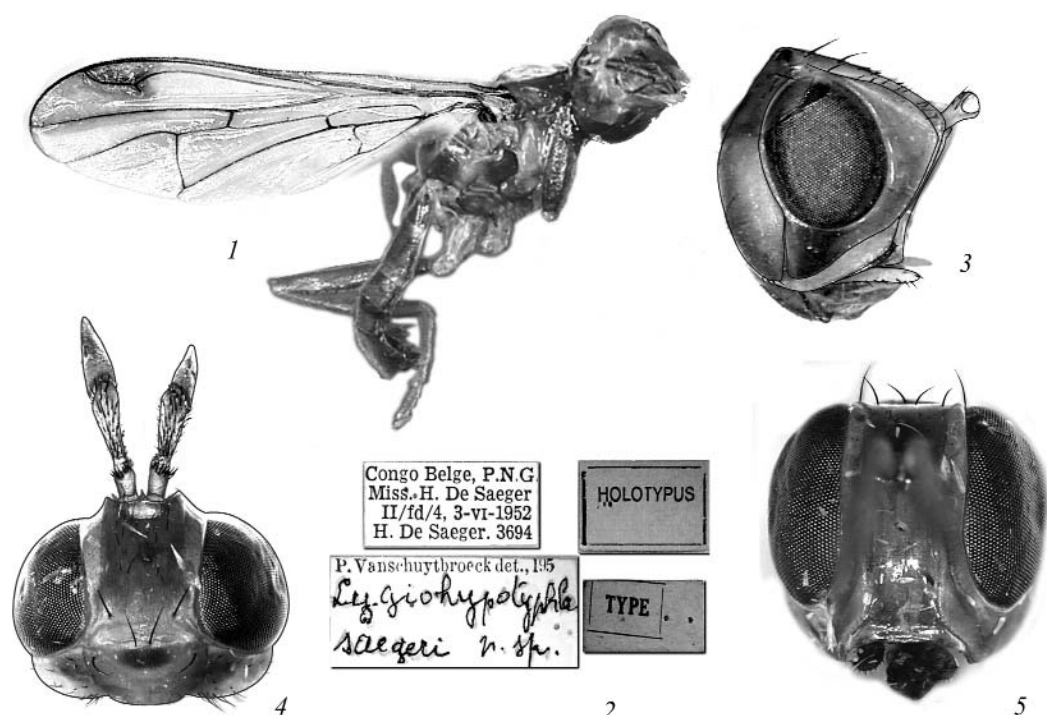


Fig. 1. *Eupyrgota saegeri*, holotype ♂ (RMCA) (1–3) and non-type ♀ from Nigeria (USNM) (4–5): 1 — habitus, right; 2 — labels; 3–5 — head (3 — right; 4 — dorsal; 5 — anterior).

Рис. 1. *Eupyrgota saegeri*, голотип ♂ (RMCA) (1–3) и нетиповая ♀ из Нигерии (USNM) (4–5): 1 — общий вид, справа; 2 — этикетки; 3–5 — голова (3 — справа; 4 — дорсально; 5 — спереди).

Redescription. Head yellow, in 5 females with brownish stripes along occipital sutures and subocular dilation; face yellow, in 2 of 3 males with pair of vertical shining black stripes; in one male frontal stripe, most of parafacial and occiput brown. Head length : height : width ratio 1 : 1.2 : 1.3; eye ratio 0.52–0.65 in both sexes; genal–eye height ratio 0.27–0.35 in female and 0.44–0.52 in male; flagellomere 1 almost parallel-sided, narrowly or broadly rounded at apex; flagellomere 1 : pedicel ratio 1.0–1.2. Face 1.9–2.3 times as high as wide.

Thorax of females usually yellow, sometimes with brown stripe on anepisternum and brownish areas on anepimeron, katepisternum and katepimeron; darker in male. Postpronotal lobe usually without seta and with a few (1–3) short setulae or, rarely with one seta and 0–2 setulae. Mesonotum in very sparse and short setulae. Anepisternal seta absent, at most 1–2 short setulae at postero-ventral margin of anepisternum.

Wing hyaline, cell r_1 pale yellowish along costa, and brown in its broadened apical portion and along apical one-quarter of vein R_{2+3} in female, and also with brownish apical part of cell r_{2+3} and dark shaded apical section of vein M in some males.

Legs uniformly yellow in female and brown to brownish yellow in male. Midfemur entirely setulose, without trace of femoral organ.

Wing length 6.5–7.5 in female and 6.0–7.2 in male.

Abdomen uniformly yellow in female (rarely syntergite 1+2 and tergites 5 and 6 slightly brownish) or brownish yellow in male. In female, synsternite 1+2 almost rectangular, as wide on posterior margin as on anterior, with 1–3 pairs of posterior marginal setae and sparse setulae; sternites 2–4 transverse, twice as wide as long, with sparse setulae and 2–4 pairs of long marginal setae; sternite 6 subrectangular, with rounded posterior margin and 2–3 (rarely to 4) pairs of long postero-marginal setae. In male, synsternite 1+2 strongly V-shaped narrowed posteriorly, with 8–12 long and se-

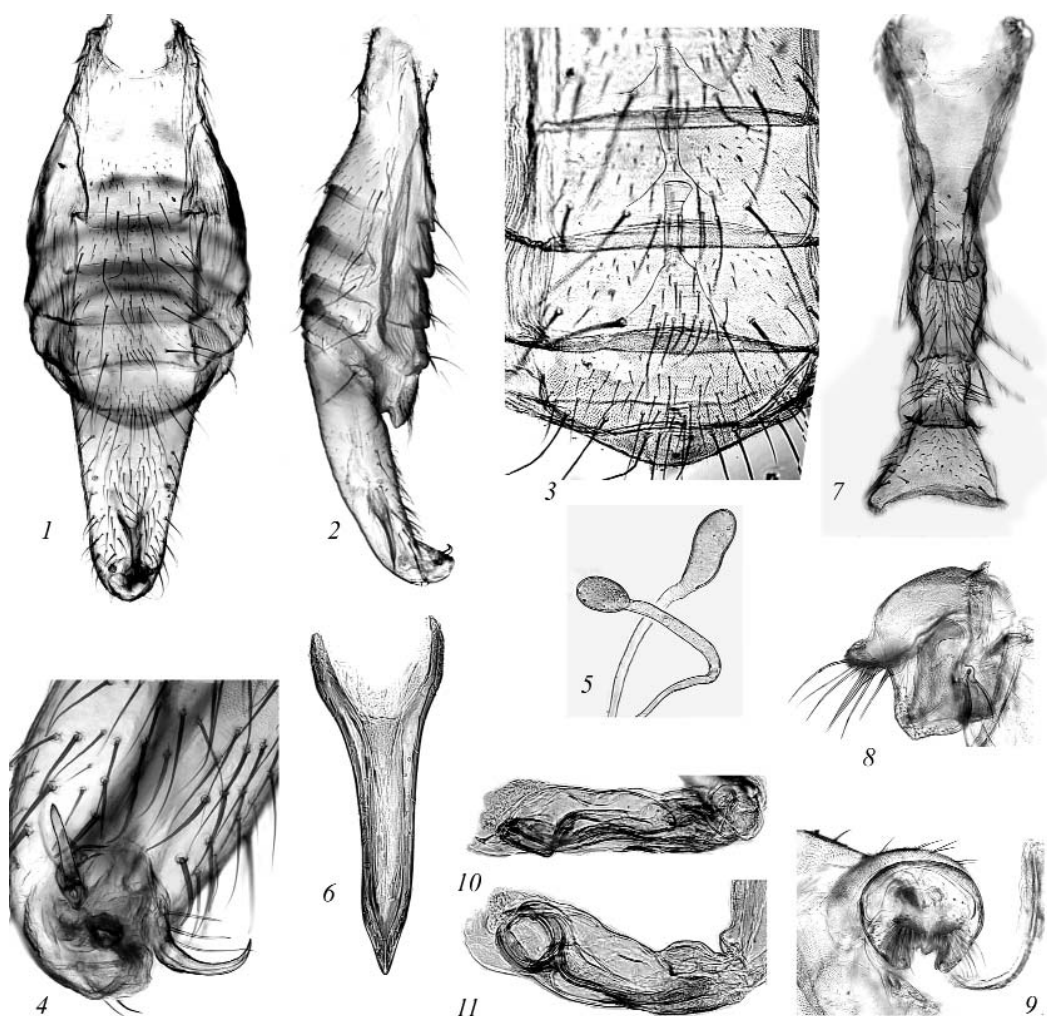


Fig. 2. *Eupyrgota saegeri*, non-type ♀ from Nigeria (USNM) (1–6) and holotype ♂ (MRAC) (7–11) (from compound microscope): 1–2 — abdomen (1 — ventral, 2 — right); 3 — abdominal sternites 3–6, dorsal, showing anteromedial apodemes; 4 — apex of oviscap; 5 — spermathecae (2 of 3); 6 — aculeus; 7 — abdominal sternites 1–5; 8–9 — epandrium (8 — left, 9 — posterior); 10–11 — glans (10 — right, 11 — ventral).

Рис. 2. *Eupyrgota saegeri*, нетиповая ♀ из Нигерии (USNM) (1–6) и голотип ♂ (MRAC) (7–11) (фото со светового микроскопа): 1–2 — брюшко (1 — вентрально, 2 — справа); 3 — брюшные стерниты 3–6, дорсально, видны переднемедиальные аподемы; 4 — вершина основного членика яйцеклада; 5 — сперматеки (2 из 3); 6 — лезвие яйцеклада; 7 — 1–5-й брюшные стерниты; 8–9 — эпандрий (8 — слева, 9 — сзади); 10–11 — гланс (10 — справа, 11 — вентрально).

veral shorter setae at posterior margin (fig. 2, 7); sternites 3 and 4 narrow, at least half as wide as long; sternite 5 trapezoid, more than twice as wide on posterior margin as on anterior, uniformly setulose, with two long setae at postero-marginal corner.

Male postabdomen. Epandrium as in fig. 2, 8–9; setulae on lateral surstylus sparse, dorsalmost above proctiger; medial surstylus with 7–10 setulae. Glans of phallus as in fig. 2, 10–11.

Female postabdomen. Oviscap reddish yellow, shining, with a few short setulae dorsolaterally; ventral surface rather densely black setulose, with numerous long, but comparatively thin and sparse setae in posterior half; paired hooks very thin claw like (fig. 2, 4). Aculeus as in fig. 2, 6. Three oval spermathecae (fig. 2, 5).

Remarks. This species differs from *E. spinifemur* mainly by the absence of the femoral organ in female. Other characters, e. g., the absence of anepisternal seta and the sparser “brush” of setae on the oviscapae, are somewhat variable and less definitive. Males of *E. saegeri* and *E. spinifemur* can be distinguished only by the number of setulae and setae on the thorax. The holotype male of *E. saegeri* is partially damaged (head broken off and then glued to specimen, antennae and setae on head lost). The identity of this species is partially based on the female paratype, which does not have either femoral organ, or oviscapae brush and anepisternal seta. The holotype male also possesses no anepisternal seta. The 3 known male specimens vary in coloration from almost entirely yellow to mainly brown with yellow pattern.

***Eupyrgota spinifemur* (Hendel, 1934) comb. n. (fig. 3)**

Adapsilia spinifemur Hendel, 1934: 148; Steyskal, 1980: 556.

Metopina nigra Vanschuytbroeck, 1963: 25; Steyskal, 1972: 5; 1980: 559, syn. n.

Type material. Holotype ♀ *Adapsilia spinifemur*: **Nigeria**: “N. Nigeria / Abinsi / R. Benue / 1912–1913 Dr. J. M. Dossiel”, “spinifemur H. / det. F. Hendel <white paper>” “Coll. Hendel” (NHMW). Holotype ♂ *Metopina nigra*: **Democratic Republic of Congo**: “Congo Belge: P. N. A. [Parc National Albert = Virunga National Park] / Shamuheru (Volc. Nyamuragira) / 1843 m. 15.06.1935 / G. F. de Witte : 1434”, “Prep. Micr. No. 2”, “P. Vanschuytbroeck det. / *Metopina* ♂ / *nigra* n. sp. / Holotypus [red paper label]”, “Type [pink carton label]” (RMCA).

Non-type material. **Nigeria**: Zaria: Samaru, “m.[ercury] v.[apour light] trap”, 15.07.1968, ♀; 14.05.1972, ♀; 10.06.1972, ♀ (Deeming) (USNM); same locality, “Mercury vapour / light trap”, 3–10.07.1970, ♀; 13–20.07.1970, ♀ (Ward) (BMNH).

Diagnosis. This species, as well as *E. saegeri*, can be easily differentiated from other species of *Eupyrgota* by concave face without facial carina; differing from *E. saegeri* by midfemur with well-developed femoral organ in female, and more numerous setae and setulae on postpronotum and pleuron in male (see key to species above).

Redescription. Similar to *E. saegeri*, differing as follows. Head yellow, in 2 females with pale brown stripes on occiput; in male with entirely brown frontal vitta and partially brown face, parafacial (including subocular dilation) and occiput. head length : height : width ratio 1 : 1.2–1.3 : 1.2–1.3 (in most specimens somewhat wider than high, in some slightly higher than wide); eye ratio 0.61–0.64 in female and 0.65 in male; genal–eye height ratio 0.29–0.34 in female and 0.35 in male; flagellomere 1 slightly narrowed to apex or almost parallel-sided and bluntly rounded; flagellomere 1 : pedicel ratio 1.0–1.1. Face 1.8–2.3 times as high as wide.

Thorax of females yellow, with brown stripe on anepisternum; in male more brownish (cuticle hidden). Postpronotal lobe 1 seta and 2–7 short setulae. Mesonotum in sparse and moderately short setulae. Anepisternal seta present, but no short setulae on postphragmal part in all studied specimens (2–8 setulae at dorsal margin present).

Wing hyaline, with cell r_1 along costa and vein R_{2+3} yellow, rarely darker brown apex of r_1 cell, in female; in male also with yellow bordered apical sections of veins dm-cu, R_{2+3} and M.

Legs yellow in female and brownish yellow in male. Midfemur in its distal third quarter with femoral organ 0.25 times as long as femur.

Wing length 6.8–7.5 in female and 7.9 in male.

Female abdominal synsternite 1+2 slightly narrower on posterior margin than on anterior; sternite 6 with 3–4 pairs of long postero-marginal setae. In male, sternite 5 with 4–5 pairs of long setae. Male postabdomen not examined.

Female postabdomen. Oviscapae on ventral surface with numerous thick and dense setae in posterior half (fig. 3, 7–8); paired hooks slightly flattened, sickle-like (fig. 3, 7–8). Aculeus as in fig. 3, 10. Three oval spermathecae (fig. 3, 9).

Comments. The holotype of *M. nigra* is entirely covered with mud of unknown origin, which hides the coloration of the cuticle and wing pattern, which misled

P. Vanschuytbroeck to conclude that it is entirely dark colored (including wings). I have cleaned several parts on the preliminarily softened holotype and observed that it is brown to pale brown with yellow pattern similar to male specimens of *E. saegeri*. It has 5–7 setulae on the postpronotal lobe and well-developed anepisternal setae on both sides, which indicates that this specimen is conspecific with the female holotype of *Adapsilia spinifemur* rather than with *E. saegeri*.

latipennis group of species

Description. Head yellow to partially brown; frontal vitta matt reddish yellow to brown with sparse setulae; anterior part with longer anteriorly directed setulae above lunule; 1–3 pairs of ocellar and 1 antero-medially directed orbital setae; medial vertical seta as long as ocellar; frontal plate and parafacial matt, faintly shagreened to waxy shining, shallowly pitted or wrinkled, rarely completely smooth, with numerous tiny

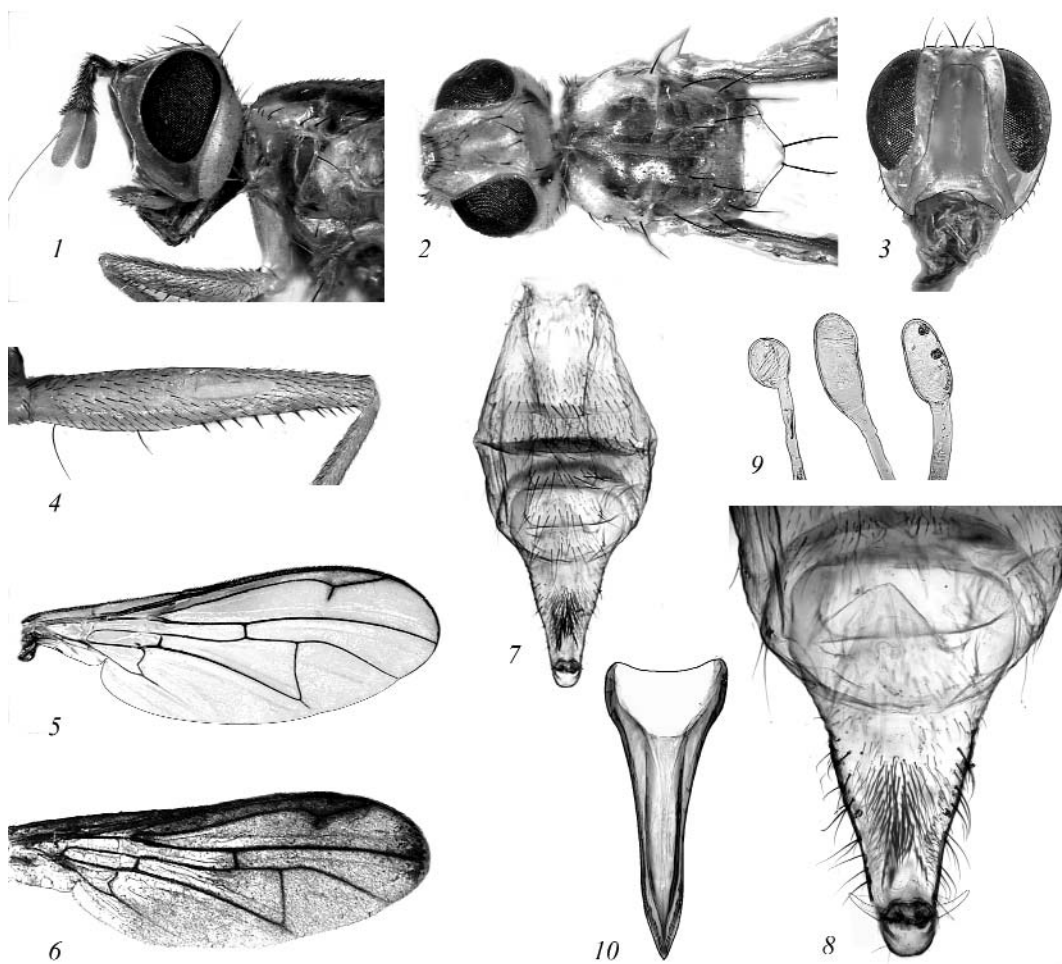


Fig. 3. *Eupyrgota spinifemur*, non-type ♀ from Nigeria (USNM) (1–5, 7–10) and *Metropina nigra*, holotype ♀ (MRAC) (6): 1 — head and anterior portion of thorax, left; 2 — head and mesonotum, dorsal; 3 — head, anterior; 4 — midfemur, anterior; 5–6 — wing; 7 — abdomen, ventral; 8 — oviscape; 9 — spermathecae; 10 — aculeus.

Рис. 3. *Eupyrgota spinifemur*, нетиповая ♀ из Нигерии (USNM) (1–5, 7–10) и *Metropina nigra*, голотип ♀ (MRAC) (6): 1 — голова и передняя часть груди, слева; 2 — голова и среднеспинка, дорсально; 3 — голова, спереди; 4 — среднее бедро, спереди; 5–6 — крыло; 7 — брюшко, вентрально; 8 — основной членок яйцеклада; 9 — сперматеки; 10 — лезвие яйцеклада.

setulae almost to ventral margin of eye (fig. 4, 2, 4; 7, 7–9; 9, 3–4); antenna yellow to dark brown; pedicel densely setulose; first flagellomere microtrichose, narrowly elliptic in outline, usually slightly tapering to apex; face yellow, usually with dark brown or black areas; medial carina well developed, narrow, dilated ventrally, matt, 0.7–0.85 times as long as facial height; antennal groove shining; epiclypeal sclerite low, 0.20–0.45 times as high as facial ridge, matt or subshining, often with transverse wrinkles (fig. 7, 9; 9, 3–4); frontogenal suture narrowly black in ventral part; parafacial 1.5–3.2 times as wide as 1st flagellomere; gena 0.28–0.53 as high as eye vertical diameter, subocular dilation subshining or shining, often with dark subocular spot; postgena and occiput yellow to brown, moderately densely microtrichose; median occipital sclerite with 1–4 pairs of postocellar setulae and 3–6 setulae at each dorso-lateral side, often with one or two oblique brown marks in the middle, forming triangular, Y- or V-shaped mark; up to 20–30 fine and moderately long supracervical setae on each side, almost as long as other major head setae; 35–50 occipital setae 1.5 times as long as postocular setae; up to 20–25 setae in each postocular row; mouth parts very large; palpus yellow with short blackish setulae, apically dilated and bluntly rounded, as long as 1st flagellomere.

Thorax usually pale yellow, often with reddish yellow mesonotal scutum and postnotum, and brownish band on anepisternum and katepimeron; in darker specimens mostly brown, with yellow postpronotal lobe, scutellum, posterior part of anepisternum, most of katepisternum, and whole katatergite; postpronotal lobe with 10–20 setulae ca. half as long as vertical and ocellar setae and 0–2 postpronotal seta almost twice as long as surrounding setulae; mesonotum in short and sparse microtrichia not hiding underlying cuticle, with sparse dark yellow or brown setulae; scapular setae poorly or not differentiated; 2 notopleural, 1 supra-alar, 1 intra-alar and 1 post-alar setae present; 2–3 pairs of scutellar setae (rarely up to 5 pairs); proepisternum with 8–22 setulae; anepisternum with 1 strong seta and 6–7 long black setulae along posterior margin and 5–10 setulae at dorsal margin of prephragmal portion; katepisternum with 1 seta, 3–10 dorsolateral setulae half as long as katepisternal seta and 2 stout ventral setae and 3–8 setulae at posteroventral margin; anepimeron with 1 anepimeral seta and 3–10 long setulae.

Legs reddish yellow to reddish brown, sometimes partially dark brown; forecoxa with 12–15 fine setulae and 1–2 stronger setae; midcoxa with 1 strong seta on dorso-lateral part and row of 6–7 strong unmodified setulae 0.9–1.0 times as long as longest seta on anteroventral margin; hindcoxa with 1 strong seta on dorsolateral part, and 20–40 strong, posteroventrally directed setae on anteroventral margin 0.7–0.9 times as long as seta, forming neither comb, no brush; trochanters with fine setulae in male; in female, fore- and midtrochanters sometimes with short spine-like setulae forming brush; hindtrochanter fine and sparsely setulose; all femora with subequal 1 basiventral seta, 1 slightly shorter seta at basiventral one-third of femora and with thickened, but moderately long setulae ventrally, forming subequal anteroventral and posteroventral rows in apical half; forefemur sometimes with strong dorsal setae.

Wing hyaline, sometimes with yellowish tinge in anterior half or widely brownish; antero-apical part with brown spot (fig. 9, 6) or widely brown in anterior half; R_{4+5} bare or, very rarely, setulose to r-m crossvein. Upper calypter with 7–8 thickened ciliae at postero-distal margin.

Male abdomen reddish yellow to dark reddish brown, sparsely microtrichose and brown or black setulose; 1+2nd syntergite 1.1–1.5 times as long as tergites 3 and 4 combined, often with light yellow band, or “clitellum” at middle; 5th tergite 0.5–0.8 times as long as 1+2nd syntergite. Male terminalia (fig. 6, 8, 6–10; 9, 13–15) similar to those in *E. waga* (Bigot) (Korneyev, 2004: fig. 16) with epandrium higher than long in profile; lateral surstylus densely covered with thick but short setulae; medial surstylus bar-like, free in ventral half, with 5–10 short setulae; hypandrium narrow, with gonites microtrichose; phallapodeme very narrow, vanes separate; ejaculatory

apodeme fan-shaped; phallus glans with asymmetrical sclerites of acrophallus; proctiger dorsoventrally flattened, with cerci separated by desclerotized area, but not lobate.

Female abdomen (fig. 5, 1; 7, 1) of reddish yellow to brown ground color, sparsely microtrichose and reddish brown or black setulose; syntergite 1+2 usually with yellow crossband, 0.9–1.7 times as long as tergites 3–6 combined; tergites 3–6 uniformly brownish red to brownish yellow; oviscapae subshining reddish yellow to brown, often wrinkled, with short pale brown to reddish yellow setulae, 0.6–0.75 times as long as preabdominal tergites combined; apicoventrally with a pair of strong, apically flattened and often rounded in outline, black hooks, joined by V-shaped apodeme, with field of trichoid sensilla lateral to hook and group of 6–10 setulae anterior to hook; aculeus (fig. 5, 7; 8, 5; 9, 12) dorso-ventrally flattened, basally widened, tapering toward apex; spermathecae (fig. 5, 3; 8, 4; 9, 11) yellowish brown, oval or sausage-like.

latipennis subgroup

Diagnosis. Parafacial matt, finely shagreened, usually with distinct and numerous small pits (fig. 4, 2; 7, 9). Supraclypeal sclerite conspicuously wrinkled, high, 1.1–1.2 times as high as width of antennal groove. Wing with 2 distinct brown spots (on pterostigma and on antero-distal part), separated by pale yellowish area distal of R_1 apex (fig. 9, 6).

Species included. *E. caffra*, *E. latipennis* and *E. sublatipennis*.

Eupyrgota caffra (Hendel, 1914) (fig. 4–6)

Adapsilia caffra Hendel, 1914: 90; 1934: 149; Steyskal, 1980: 556; *Eupyrgota caffra*: Enderlein, 1942: 120 (pro parte; dubious identification); *Adapsilia rugosigenis* Hendel, 1934: 149, syn. n.; *Adapsilia (Eupyrgota) rugosigenis*: Steyskal, 1980: 557; *Eupyrgota rugosigenis*: Enderlein, 1942: 120 (pro parte; dubious identification); *Adapsilia vespiformis*: Vanschuytbroeck, 1963: 61 (pro parte; misidentification). Non *Adapsilia caffra* sensu Vanschuytbroeck, 1963: 64 (misidentification of *E. latipennis*).

Type material. Holotype ♀ *Adapsilia caffra* (double-mounted on celluloid rectangle, left pedicel and 1st flagellomere missing; right foreleg glued): **South Africa**: “Port Natal [= Durban] / Guenzins / 60–97”, “Pt / Natal [paper circle]”, “Campylocera / caffra H. / det. Hendel”, “♀ Type [red-boarded circle]”, “Holotype [red-boarded circle]”, “Holotype / *Adapsilia / caffra* / Hendel / verified by J. E. Chainey, 2002”, “BMNH(E) # / 252160” (BMNH). Syntype ♀ *Adapsilia rugosigenis*: **Malawi**: “Mlanje [= Mulanje?]”, “coll. Hendel”, 17.02.1913, (Neave) (“*Adapsilia / rugosigenis* / H. ♀ / Hendel det.”) (NHMW);

Non-type material. **Botswana**: “Zibadianja / Noamiland / Botswana”, 24.10.1991, ♀ (Wooff) (BMNH); **Democratic Republic of Congo**: “Terr. Yahuma, 810 m”, 12.1948, ♀ (Benoit) (RMCA) (“P. Vanschuytbroeck det 1963 / Peltodasia / vespiformis End.”); “N. Lac Kivu: Rwankwi”, 05.1948, ♂ (“P. Vanschuytbroeck det 1963 / Peltodasia / vespiformis End.”) (Leroy) (RMCA); **Malawi**: “Nyassaland / Cholo”, ♂ (Wood) (DEI), same labels, 2700 ft., ♂, ♀ (CMNH); same labels, 30.10.1928, ♀ (without femoral organ) (Wood) (CMNH); “SE 222 GBD / Farmers Brigade 5 kms / SE of Serowe Hillside / N slope / Mercury vapour lamp”, 28.11.1990, ♂ (Forchhammer) (NMPM); **Namibia**: “Bwabwata Park / Bum Hill Campside (Kwando R.) / 17°46'52" S 23°20'28" E / Malaise trap”, 10–13.02.2004, ♀ (Kirk-Spriggs) (SMWN); “Kavango, Popa Falls im / Kavango: 18°07'S/21°35'E”, 19–22.01.1999, ♀; 11.03.1992, ♀ (Koch) (ZMHB); **Nigeria**: “73 at light / Univ. coll. / Ibadan, J. R.”, 3.06.1955, ♀ (Malloch ?) (USNM); **South Africa**: Northern Province: “Nwanedi Resort, Venda, 22°38'S 30°24'E; / 550 m / R. Oberprieler / collected / at light”, 5–9.02.1994, ♀ (Oberprieler); “Hans Merensky Nat. / Res. 23°40' S 30°39' E”, 27–30.11.1981, ♀ (Mansell); “Zoutpansberg / Wyllies Poort”, 26.01.1954, ♂ (Munro); “Ben Alberts Nat. Res. / Thabazimbi / 24°27'S 27°23'E”, 24–28.11.1980, ♂ (Mansell) (SANC); “Duiwelskop [Duiwelskloof]”, 24.11.1948, ♀ (Omer Cooper) (BMNH); “Letaba camp / K. N. P. Survey”, 14–18.11.1961, ♀ (Vari et Rorke) (NMPM); “Fiesta Motel 20 km S[W] / Potgietersrus 24°17' S / 28°51' E; 1100 m”, “collected / at light”, 16.11.1992, 4 ♀ (Hölzel, Ohm et Mansell); same locality, 26.02.1995, 2 ♂ (Hölzel, Ohm et Mansell) (SANC); Mpumalanga: “Skukuza / Transvaal / 23.11.1959”, 2 ♀; “De Hoop 203 JU / Nelspruit Distr.”, 20–21.11.1972, ♀ (Strydom) (NMPM); Montrose Falls, 25°25'S 30°44'E, collected at light, 29.01.1989, ♀ (Oberprieler) (SANC); “Nelspruit”, 12.1914, ♀ (Breijer) (RNHL); Gauteng: Pretoria, 6.02.1919, ♀ (Munro), same locality, 1.12.1937, 2 ♀ (van Son) same locality, 31.01.1955, ♀ (Stuckenberg) (NMPM); same locality, Roodeplaat, bait trap, 01.1958, 4 ♂, 3 ♀; same locality (“Roodeplaat / Pretoria Distr.”), 3.11.1958, ♂, ♀, 12.1958, ♂ (Bot); same locality (“Ze: Rp 237 / Loc: HRI Pretoria”), 01.1975, ♂, ♀ (Donaldson) (SANC); North-West Province: “Rustenburg Nature / Res. 25°40'S 27°12'E”, 23–26.02.1981, ♂ (Miller) (SANC); Mpumalanga: “Barberton”, 12.1978, ♂ (Eardley) (SANC); KwaZulu-Natal: “Lake Sibaya, Baya / Camp 27°23'S / 32°41'E; 50 m”, collected at light, 30.11–2.12.1992, ♀ (Hölzel, Ohm et Mansell) (SANC); “Percy Fife Nat. Res. / Potgietersrus Distr.”, 18–20.01.1971, ♂ (Jones); “Mtunzini / Zululand”, ♀ (Schofield); “Mkuzi Game

Reserve / ca 140 m / 27°38'20" S : 32°09'30" E / MV light et Malaise", 8–15.10.1990, ♂ (Londt); "Stellab. [Stellabush near Durban] / 17–16 / Woelig [??? - unreadable]", ♀ (NMPM); "Hluhluwe Game Res. / 28°02'S : 32°05' E", 4–6.02.1994, ♂ (Schumann) (ZMHB); "Richards Bay", "at night into vehicle", 3.02.1963, 2 ♂ (Tinley) (NMPM); **Tanzania**: [D. O.-Afrika, Bumbuli (Ost Usambara) — according to Enderlein (1942): blue label with ink faded or washed away], 5.12.1890, ♂ (Meinhof) (ZMHB); "N.-Nyassa / Langenburg", 03.1898, ♂ (Füllerborn) (ZMHB) ("Eupyrgota rugosigenis (Hend. 1934) ♂ / Dr. Enderlein det. 1940"); **Zimbabwe**: "Yumbu Mts.", 03.1930, ♀ (USNM) ("Adapsilia / ypsilon / Hend. / Det. / J. R. Malloch"); "Basely Br., S. R.", 28.01.1963, 2 ♀ (Cookson) "Zimbabwe / S. Rhodesia, B. R. S. P. G.", 28.01.1955, 2 ♀ (NMPM); "S. Rhodesia / Vleiplaats Est. / 1952 / Rhod. Whattle bo. / prob. par. of. / Eulebida mashona", "Com. Inst. Entomol. / Coll. No 12955", "Pres. by / Com. Inst. Ent. / B. M. 1953–354 [locality not found; actually SAR?]", ♂ ("Adapsilia (?) sp. indet. (teneral) van Emden det. 1953") (BMNH).

Diagnosis. Parafacial conspicuously pitted and wrinkled; thorax brownish yellow to brownish red; female fore- and midtrochanter sparsely spinulose, forefemur thickened, with strong dorsal setae, midfemur with femoral organ; oviscapae with thin, long and yellowish setulae anterior to hooks; aculeus with wide basal (twice as wide as base of apical part) and long apical part (at least 3 times as long as basal); male: phallus glans with almost symmetrical loop-like sclerites of praeputium surrounding gonopore.

Redescription. Body brownish yellow to brown without contrasting brown patterns; setae and setulae brown to black; mesonotum length 2.2–4.8 mm (holotype 4.33 mm), wing length 8.3–14.5 (holotype 12.8 mm).

Head brownish yellow to light brown with frontal-head ratio 0.43–0.55, eye ratio 0.45–0.50, genal-eye ratio 0.33–0.4 in female, 0.38–0.50 in male; first flagellomere-pedicel ratio 0.85–1.33; medial vertical seta 0.10–0.16 times as long as longest diameter of eye; lateral vertical seta 0.3–0.4 times as long as medial vertical seta, often indistinguishable; ocellar seta 0.8–0.9 times as long as medial vertical seta, often lacking; orbital seta 0.7–0.9 times as long as medial vertical seta; frons whitish to brownish yellow; frontal vitta matt with sparse setulae and dark brown dots at their bases, in holotype with large brown patch in middle; frontal plate and parafacial matt (shagreened) or, rarely, subshining, shallowly pitted and sometimes wrinkled, with small black spot and short brown setula in bottom of every pit; antenna yellowish brown to brown; first flagellomere brown, densely microtrichose, 2.8–3.2 times as long as wide, narrowly elliptic in outline, slightly tapering to apex; arista bare; face shining brownish yellow with black spots between bases of antennae and two black strikes along medial side of antennal groove; frontogenal suture narrowly black in ventral part; median carina 0.7 times as long as facial height; parafacial subshining, pitted and setulose as described above, 1.4–1.7 times as wide as 1st flagellomere in male, 1.51.6 times in female; gena with matt, light brown genal groove and subshining yellowish brown dorsal half and dark brown subocular spot; genal dilation linear, black; postgena brownish yellow; occiput with 18–20 yellowish supracervical setulae on each side, often with two oblique brown marks in the middle, forming incomplete V-shaped mark, brown along upper occipital suture, and pair of brown supracervical spots or without them, or entirely yellow; mouth parts brown, large, as long as antenna, moderately long setulose; palpus as long as flagellomere 1, reddish yellow with short blackish setulae, very slightly widened before apex.

Thorax reddish yellow to yellowish brown; postpronotal lobe yellow with 17–20 brown setulae approximately as long as vertical and ocellar setae and 1, rarely 2 postpronotal seta(-e) almost twice as long as surrounding setulae; scutum reddish yellow with short black or brown setae and moderately short and dense brownish red or yellow setulae; scutellum reddish to brownish yellow; 2–3 pairs of scutellar setae; pleura reddish to brownish yellow ground color; presternum with cluster of 3–5 black or brown setulae on apex of each lateroventral process; proepisternum with 12–20 moderately long setulae, 3–4 dorsal longest; anepisternum of reddish yellow ground color darker patches, with 1 seta (broken off on both sides in holotype) and 14–17 moderately long setulae; katapisternum with 1 seta, 10–12 moderately long dorsolateral setu-

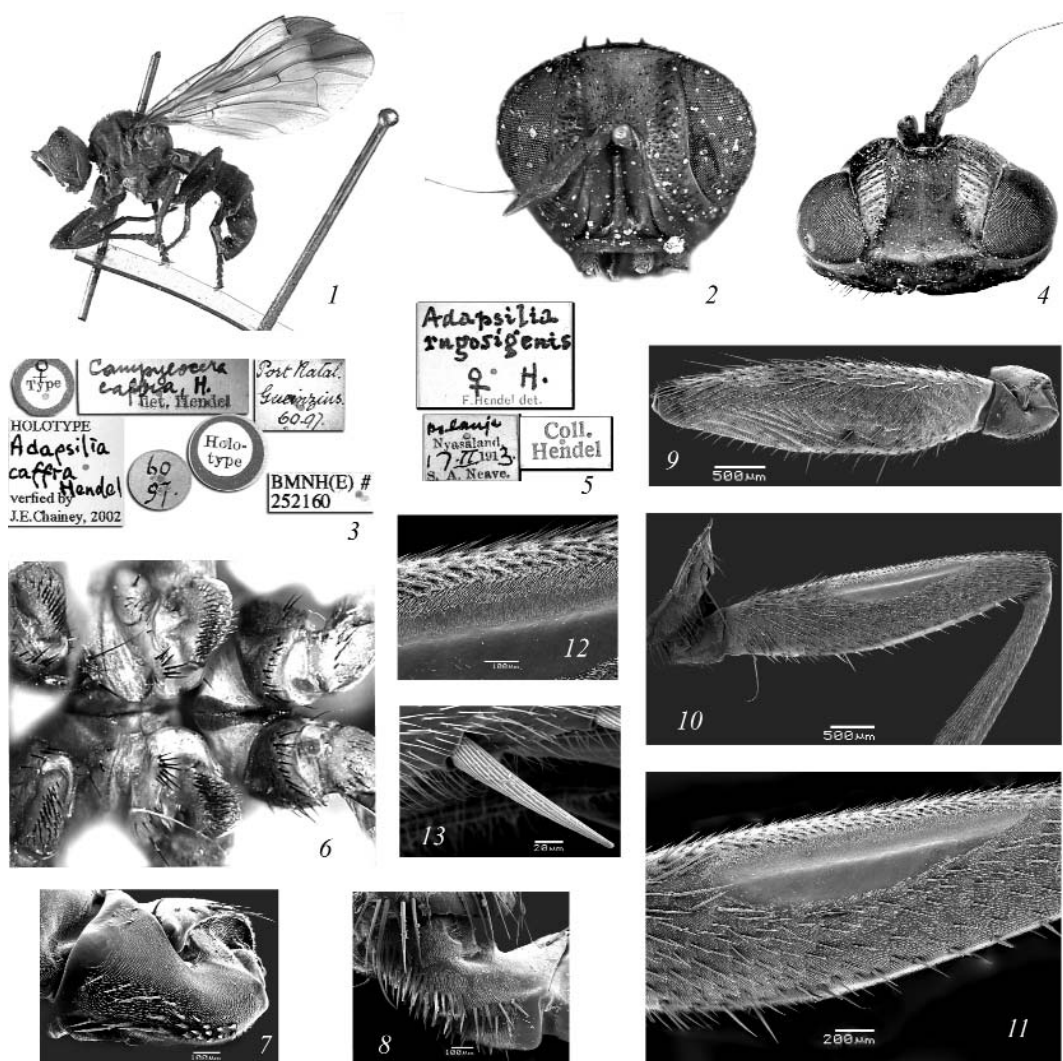


Fig. 4. *Eupyrigota caffra*, holotype ♀ (BMNH) (1–3), syntype ♀ *A. rugosigenis* (NHMW) (4–5) and non-type ♀ from Natal (NMPM) (6–13): 1 – habitus, left; 2, 4 – head (2 – left, 4 – dorsal); 3, 5 – labels; 6 – coxae and trochanters, ventral; 7 – foretrochanter, anteroventral; 8 – midtrochanter, anterior; 9 – foretrochanter and forefemur, posterior; 10–13 – midfemur, anterior (10 – total view, with coxa, trochanter and part of tibia, 11 – femoral organ, 12 – area dorsal to femoral organ, enlarged, 13 – spurious seta of ventral row, enlarged) (1–6 – from dissecting microscope, 7–13 – SEM).

Рис. 4. *Eupyrigota caffra*, голотип ♀ (BMNH) (1–3), синтип ♀ *A. rugosigenis* (NHMW) (4–5) и нетиповая ♀ из Натала (NMPM) (6–13): 1 – общий вид, слева; 2, 4 – голова (2 – слева, 4 – дорсально); 3, 5 – этикетки; 6 – тазики и вертлуги, вентрально; 7 – передний вертлуг, переднеventрально; 8 – средний вертлуг, спереди; 9 – передний вертлуг и переднее бедро, сзади; 10–13 – среднее бедро, спереди (10 – общий вид, с тазиком, вертлугом и частью голени, 11 – феморальный орган, 12 – участок сверху от феморального органа, увеличено, 13 – шипик вентрального ряда, увеличено) (1–6 – фото с бинокля, 7–13 – фото со сканирующего электронного микроскопа).

lae half as long as katapisternal seta and 3–4 rather stout ventral setae (partially damaged on both sides in holotype) and 3–4 finer setulae at posteroventral margin; anepimeron with 1 anepimeral seta and 7–8 long setulae; katepimeron, meron, katatergite and anatergite, sub-scutellum and mediotergite subshining, sparsely and short microtrichose, pale to dark reddish yellow, with more or less distinctive wrinkles.

Legs uniformly reddish yellow; forecoxa with 15–20 fine setulae and 2–3 stronger setae; midcoxa with 1 strong seta on dorso-lateral part, 7–8 fine and short setulae on postero-ventral margin, and cluster of 6–8 moderately strong unmodified setulae

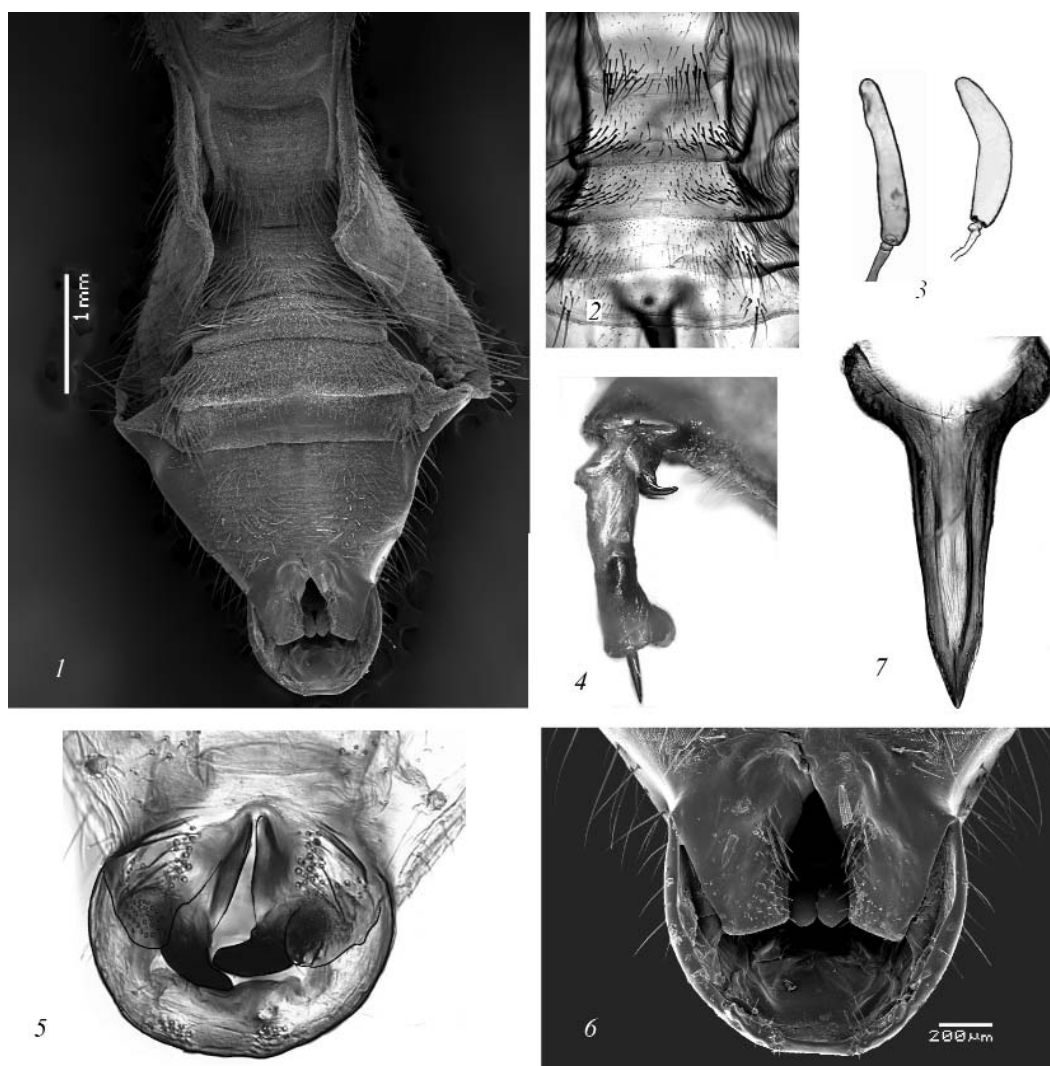


Fig. 5. *Eupyrgota caffra*, non-type ♀ from Natal (NMPM): 1 — abdomen, ventral; 2 — sternites 2–6; 3 — spermathecae (2 of 3); 4 — apex of oviscape, eversible membrane and exposed aculeus, right; 5–6 — apex of oviscape (membrane inverted); 7 — aculeus (1, 6 — SEM; 4 — from dissecting microscope; 2, 3, 5, 7 — from compound microscope).

Рис. 5. *Eupyrgota caffra*, нетиповая ♀ из Наталя (NMPM): 1 — брюшко, вентрально; 2 — стерниты 2–6; 3 — сперматеки (2 из 3); 4 — вершина основного членика яйцеклада, вывернутые наружу мембрана и лезвие яйцеклада, справа; 5–6 — вершина основного членика яйцеклада (мембрана ввернута внутрь); 7 — лезвие яйцеклада (1, 6 — фото со сканирующего электронного микроскопа; 4 — фото с бинокля; 2, 3, 5, 7 — фото со светового микроскопа).

0.5–0.7 times as long as longest seta on anteroventral margin, forming neither comb nor brush; hindcoxa with 1 strong seta on dorsolateral part, and 10–15 moderately strong setulae 0.6–0.7 times as long as seta, on anteroventral margin; in female: foretrochanter with moderately dense brush of thickened and short, spine-like, posteriorly directed setulae; midtrochanter with similar, but slightly larger brush of posteriorly directed setulae; hindtrochanter fine and sparsely setulose; in male, all trochanters ventrally with fine sparse setulae; all femora with slender basiventral seta, longest on forefemur (as long as width of femur), with clusters of dorsoapical setae 1.5 as long as short dorsal setulae, and with short spine-like setulae ventrally, forming subequal anteroventral and posteroventral rows in apical half; forefemur conspicuously thickened in

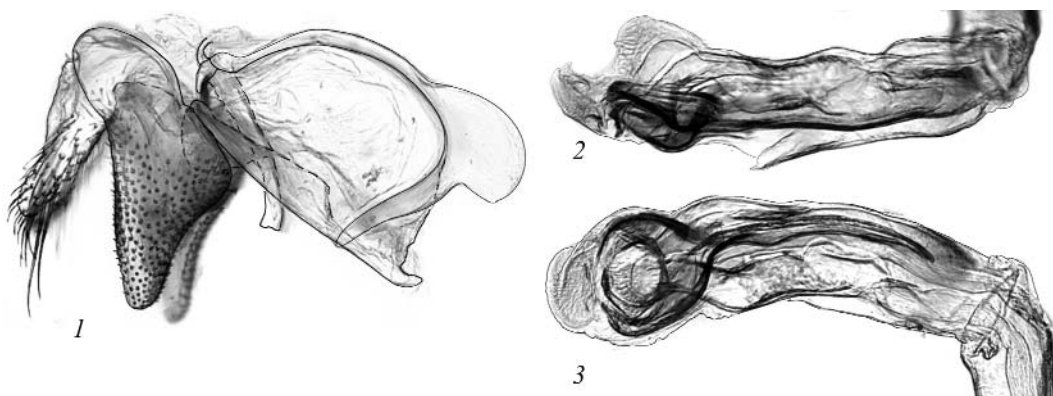


Fig. 6. *Eupyrgota caffra*, non-type σ from Natal (NMPM): 1 — male terminalia, right (segments 6–8 and phallus detached); 2–3 — glans (2 — right, 3 — ventral).

Рис. 6. *Eupyrgota caffra*, нетиповой σ из Натала (NMPM): 1 — терминалии самца, справа (6–8-й сегменты и фаллос удалены); 2–3 — гланс (2 — справа, 3 — вентрально).

female, 3.0–3.3 times as long as wide, dorsally with 7–8 semi-appressed setae 1.5 times as long as surrounding setulae and with 2–4 slender setae posteroventrally in basal half next to basiventral seta (fig. 4, 9); midfemur with femoral organ half as long and almost half as wide as midfemur in female; 3 rows of short spinulose setulae dorsal to femoral organ (fig. 4, 10–12); very rarely, femoral organ reduced or absent; in male, forefemur not conspicuously thickened, only 3.8–4.2 times as long as wide.

Wing hyaline with grayish microtrichiae in posterior half, with yellowish tinge in anterior half (basal costal, costal, subcostal, basal radial and basal halves of r_1 , r_{2+3} and antero-basal quarter of r_{4+5} cells); apices of r_1 , r_{2+3} and antero-apical portion of r_{4+5} cells with brown subapical spot; wing-thorax ratio 3.0–3.2, vein R_{4+5} ratio 1.5–1.8, vein M ratio 0.40–0.68.

Male abdomen reddish yellow to reddish brown, sparsely microtrichose and brown, short setulose; syntergite 1+2 1.2–1.3 times as long as tergites 3 and 4 combined; and 1.8–2.0 times as long as tergite 5; synsternite 1+2 long and narrowed to posterior margin, 5.0–5.2 times as long as wide at posterior margin; epandrium and hypandrium as in fig. 6, 1; glans of phallus with almost symmetrical sclerites of praepitium of loop-like appearance; lateral flap of glans corpus short and almost appressed (fig. 6, 2–3).

Female abdomen similarly colored; syntergite 1+2 1.2–1.4 times as long as tergites 3–6 combined; oviscap subshining yellowish or reddish brown ground color, robust, 0.74–0.78 times as long as preabdominal tergites combined and slightly wider than long on ventral side; apicoventrally with pair of rather soft lobes, densely covered by trichoid sensillae and closing oviscap aperture in rest; pair of strong black hooks medial to each inverted in rest and exposed ventrobasally of everted membrane; ventral surface of oviscap anterior to hooks with 6–8 short fine yellow setulae; aculeus with base gradually transiting into long stiletto-like piercing part more than 2.9–3.4 times as long as its bulky base (fig. 5, 7); spermathecae elongate oval to sausage-like, 3.5–7 times as long as wide (fig. 5, 3), one of 3 sometimes V- or Y-like bifurcated.

Remarks. *E. caffra* is widespread mainly in southern Africa, but a single undoubtedly identified female is recorded from Nigeria. The femoral organ, a structure, which differentiates *E. caffra* from *E. latipennis* and *E. sublatipennis* is absent in one female from Malawi (which fits the diagnosis of *E. caffra* in genitalic characters).

F. Hendel (1934) gave only a brief diagnosis of *A. rugosigenis* in the key: “[Fronto-orbital plates] in the anterior portion of the frons with transverse wrinkles. Parafacial twice as wide as flagellomere 1; antennal groove only 2/3 as long as face... 11–16 mm. Uganda” (translated from German). The only specimen in Hendel’s collection (NHMW) under this name is a large female of *A. caffra* from Mlanje (Malawi) (see

above). It therefore did not originate from “Uganda”, and the original statement of Hendel is a lapsus calami (like in several other places in the same paper); this specimen is obviously a possibly unique syntype of *E. rugosigenis*.

Eupyrgota latipennis (Walker, 1849) (fig. 7, 8)

Oxycephala latipennis Walker, 1849: 1087; *Adapsilia latipennis*: Hendel, 1914: 88; 1934: 148; Vanschuytbroeck, 1963: 65; *Adapsilia (Eupyrgota) latipennis*: Steyskal, El-Bialy, 1968: 39; Steyskal, 1972: 1; Steyskal, 1980: 557. *Adapsilia ypsilon* Hendel, 1914: 89; 1934: 149; Steyskal, 1972: 1; *Adapsilia (Eupyrgota) ypsilon*: Steyskal, 1980: 557; *Eupyrgota ypsilon*: Enderlein, 1942: 119, syn. n.

Adapsilia rugosigenis Hendel, 1934: 149, possible synonym. *Eupyrgota rugosigenis*: Enderlein, 1942: 119 (misidentification).

Adapsilia vespiformis: Vanschuytbroeck, 1963: 61 (pro parte; misidentification).

Non *Adapsilia ypsilon*: Vanschuytbroeck, 1963: 64 (misidentification of *Clemaxia* sp. near *gracilis*).

Type material. Holotype ♀ *Oxycephala latipennis*: **Sierra Leone**: “Sierra Leone”, “38 / 11. 8 / 295 [circle]”, “Type [green bordered circle]”, “Holo / type [red bordered circle]”, “one of Walker series so named”, “Holotype *Oxycephala latipennis* Walker verified J. E. Chainey 2002”, “BMNH # 25167”. Double-mounted on celluloid rectangle, right pedicel and 1st flagellomere missing; apex of right wing partially broken off. (BMNH). Holotype ♀ *Adapsilia ypsilon*: **Sierra Leone**: “130 / Sierra Leone / Protectorate, / West Africa. / March 1910 / Dr. H. E. Arbuckle. / 1910-247”, “♀ / Type [red bordered circle]”, “*Eupyrgota / ypsilon*, H. [Hendel’s handwriting] / det. Hendel”, “Holotype [red bordered circle]”, “Holotype *Adapsilia ypsilon* Hendel Verified by J. E. Chainey, 2002”, “BMNH(E) # 252166” (BMNH).

Non-type material. **Burundi**: “Urundi: Rugari, Dames de Marie”, 1948, ♀ (“P. Vanschuytbroeck det 1963 / Peltodasia / vespiformis End.”) (RMCA); “Urundi: Kisenyi”, “R. I. Sc. N. B. / I. G. 24.452”, 05.1956, ♀ (François) (RBNH); **Côte-d’Ivoire**: “Javier / Adiopodoume”, “50”, 7.09.1949, ♂ (collector unknown); “Dimbroko”, 1919, ♀ (oviscape lacking) (Seguy) (MNHNP); **Democratic Republic of Congo**: “Kibali-Ituri: Bayenga, Terr. Wamba, 810 m”, 01.1956, ♀ (“P. Vanschuytbroeck det 1963 / *Adapsilia / caffra* Hend.”) (RMCA); Rutshuru, “R. Mus. Hist. Nat. / Belg. I. G. 10.482”, 04.1937, ♀ (Ghesquiere) (IRSNB); Kibali-Ituri: Mahagi-Niarembe, 09–10.1935, 3 ♂ (“P. Vanschuytbroeck det 1963 / Peltodasia / vespiformis End.”) (Scops) (RMCA); “Rutshuru, 1285 m : 118”, 25.11–20.12.1933, ♂ (“P. Vanschuytbroeck det 1963 / Peltodasia / vespiformis End.”) (de Witte) (RBNH); Kivu: Buseregenye (Rutshuru), 09.1929, ♂ (“P. Vanschuytbroeck det 1963 / Peltodasia / vespiformis End.”) (Luja) (RMCA); Kivu: Lwiro, 26.11.1966, ♀, 11–12.1966, 3 ♀ (“Peltodasia latipennis (Walk.) d. Steyskal 69”) (Jilly) (SMNS); “Kapiri / Miss. Agric.”, 09.1912, ♀; Lulua: Kapanga, 05–06.1959, ♀ (Allaer) (“P. Vanschuytbroeck det 1963 / Peltodasia / vespiformis End.”) (RMCA); **Ethiopia**: “Abessinien / Dire Daoua” [= Dire Dawa], 3.06.1936, ♂ (“*Eupyrgota / rugosigenis* / (Hend. 1934) ♂ / Dr. Enderlein det. 1940”) (Uhlenhuth) (ZMHB); **Gambia**: “Keneba, at mercury light”, 19.06.1974, 2 ♂, ♀ (BMNH); **Ghana**: “Gold Coast: / nr. Accra”, 9.07.1943, ♂ (Guichard) (BMNH); **Malawi**: “Zomba Plateau / 1500 m, 1535 Ad Montane forest”, 12–14.12.1980, ♀ (Londt et Stuckenberg) (NMPM); **Namibia**: “Kavango: Pope Falls im / Kavango [Kapriivi Strip], 18°07' S / 21°35' E”, 13.03.1992, ♀ (Koch) (ZMHB); Tsumkwe District: “/ Trekkersboom / 19°18'00" S 20°39'42" E / sweeping grasses in wet area”, 26.11.1998, ♀ (Kirk-Spriggs); Tsumeb District: “Varianto 771/2 / 19°23'00" S 17°43'57" E / light trap”, 28.03–01.04.2001, ♀ (Kirk-Spriggs et Mey); Otjinene District: “Epukiro River, 3 km N at: / 21°22'26" S 20°06'09" E / Malaise trap samples”, 09–11.02.2001, ♀ (Kirk-Spriggs, Marais et Wheeler); “De Hoek 838 / 21°56'26" S 20°58'55" E / Malaise trap samples”, 03–06.02.2001, ♀ (Kirk-Spriggs, Marais et Wheeler); Gobabis District: “Somerksoms 521 / 22°01'59" S 19°57'22" E / Malaise trap samples”, 06–08.02.2001, 3 ♀ (Kirk-Spriggs, Marais et Wheeler); “Kaudom Game Pk. / 10 km W of Dussi / 18°48'32" S 20°43'57" E / Malaise traps”, 29–30.12.1998, ♀ (Kirk-Spriggs, Marais et Mann) (SMWN); **Nigeria**: Samaru, “Mercury vapour light trap”, 3–10.06.1970, ♀; 15–22.06.1970, ♀; 13–20.07.1970, ♀; 21–29.07.1970, ♀ (Ward) (BMNH); “Zaria, Samaru”, “m. v. trap”, 26.05.1967, ♀, 19.06.1972, ♂ (dissected) (Deeming) (USNM); “73 at light / univ. coll. / Ibadan / J. R.”, 3.06.1955, ♀ (Malloch?) (USNM); **Rwanda**: “Kisenyi 1500 m”, 20.01.1952, ♀ (“P. Vanschuytbroeck det 1963 / *Adapsilia / latipennis* / Walk.”); “Kisenyi”, 10.1952, ♀ (“P. Vanschuytbroeck det 195... / *Adapsilia / latipennis* Walk.”); “Kigali / 1500–1800 m”, 12.10.1951, ♀ (“P. Vanschuytbroeck det 1963 / *Adapsilia / latipennis* / Walk.”) (Bertrand) (RMCA); **Saudi Arabia**: Melalu, 2.11.1948, ♀ (Watson); “Locust Research Station / Jeddah”, “Abha / Nomias LT [light trap?]”, 8.06.1972, ♀; Mecca, 10.01.1935, ♀ (Philby) (BMNH); **Senegal**: Thiés, 5.07.1908, ♀ (“*Eupyrgota caffra* Hend. 1913 ♀”) (Riggenbach) (ZMHB); Bandia, 18.06.1980, ♀, 9.07.1980, ♀ (Sigwalt); M’Bour, 9.09.1980, ♂, ♀ (Sigwalt) (MNHNP); **Sudan**: Ed Damer, Hudelba, 14.01, 5.03, 12.05.1962, 3 ♀ (Remane) (ZSSM); Khartoum, found on window, “Ent. coll. C11391”, 2.11.1931, ♂ (A. H. Wood); Shendi, at light, “Africa 1/250,000 450 Map”, “Ent. coll. 06856”, 18.09.1928, ♀ (Cowland) (NHMW); **Togo**: Lome, 9.11.1909 (NHMW); **Uganda**: “Ruwendori Range B. M. E. Afr. Exp.”, “Kilembe / 4.500 ft”, 12.1934–01.1935, ♂, ♀ (Edwards) (BMNH); “Ankole / Kichwamba”, 1–5.05.1968, ♀ (“*Adapsilia latipennis* (Walk.) d. G. Steyskal 72”) (Spangler) (USNM); “Kampala”, 19.07.1948, ♀ (Sevastopulo) (NMKE); “Tororo / nesting pond [?] / early Am [?] [pencil, handwritten]”, 22.01.1959, ♀ (collector unknown); Labwor 04.1955, ♀ (van Someren) (BMNH); Acholi: Madi Opei, 04.1951, ♀ (Jackson) (NMKE); **Yemen**: Ta’izz, light trap, 26–28.05.1998, ♂,

3 ♀ (van Harten et Awad); light trap, 26–28.05.1998, ♂, ♀ (van Harten et Awad) (MHNG); light trap, 3–24.01.1999, ♀ (van Harten et M. Mahyoub); 07.1999, ♂, ♀; 08.1999, ♀; 11.1999, ♀; 12.1999 (van Harten et Awad) (ZMAN), 12.1999, ♀ (van Harten et Awad) (MHNG); 05–06.2000, 8 ♀; 09.2001, 3 ♀; 09.2001, ♀ (van Harten et Al Yarimi) (ZMAN); Zimbabwe: “A. Carnegie / Dec. 1950 / Banket. S. R.”, ♀ (Carnegie) (NMPM); “Salisbury Exp. Stn. / Light Trap”, 11.1957, ♂ (Brown) (SANC).

Non-type material possibly belonging to *E. latipennis*. **Côte-d'Ivoire**: “Lamto (Toumodi)”, 06–08.1968, ♀ (Girard) (MNHNP) (oviscape lacking; parafacials almost smooth, subshining; body and legs two-colored); **Uganda**: Labwor Hills”, “Com. Inst. Ent. / Coll. No. 13261”, 04.1951, ♀ (DEI; seen in 2002; not re-examined); “Aequatorial-Afrika, Ruwenzori, Mubecki-River”, ♀ (Hendel said it to be in BMNH; not located; not examined); Zimbabwe: “Salisbury” [Harare], 8.01.1942, ♂ (Pinhey) (NMPM).

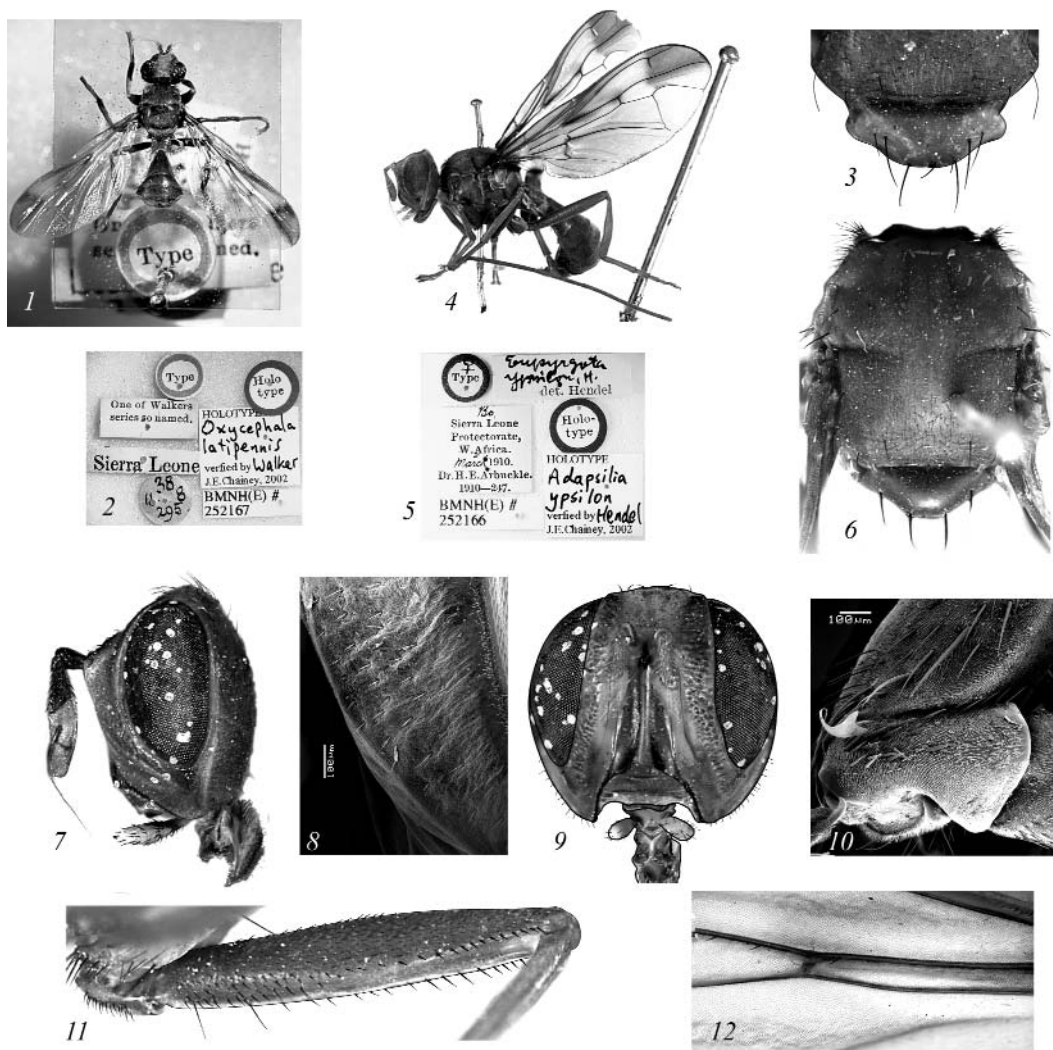


Fig. 7. *Eupyrigota latipennis*: holotype *Oxycephala latipennis* ♀ (BMNH) (1–3, 7, 9, 11), holotype ♀ *Adapsilia ypsilon* (BMNH) (4–6, 12) and non-type ♀ from Yemen (ZMAN) (8, 10): 1, 4 – habitus (1 – dorsal, 4 – left); 2, 5 – labels; 3, 6 – mesonotum, dorsal; 7, 9 – head (7 – left, 9 – anterior); 8 – parafacial; 10 – foretrochanter; 11 – midfemur anteroventral; 12 – medial portion of R_{4+5} with setulae on dorsal side (1–7, 9, 11–12 – from dissecting microscope; 8, 10 – SEM).

Рис. 7. *Eupyrigota latipennis*: голотип *Oxycephala latipennis* ♀ (BMNH) (1–3, 7, 9, 11), голотип ♀ *Adapsilia ypsilon* (BMNH) (4–6, 12) и нетиповая ♀ из Йемена (ZMAN) (8, 10): 1, 4 – общий вид (1 – дорсально, 4 – слева); 2, 5 – этикетки; 3, 6 – среднеплавка, дорсально; 7, 9 – голова (7 – слева, 9 – спереди); 8 – скула; 10 – передний вертлуг; 11 – среднее бедро переднеventрально; 12 – средний участок R_{4+5} со щетинками на дорсальной стороне (1–7, 9, 11–12 – фото с бинокля; 8, 10 – фото со сканирующего электронного микроскопа).

Diagnosis. Frontal plate and parafacial pitted; scutellum with 2–3 pairs of setae; foretrochanter with at most 10–15 thickened setulae, forefemur slightly thickened, mid-femur without femoral organ; ov scape on ventral side anterior to ventral sensillar lobe and hooks with 4–5 brown thickened setulae on each side (fig. 8, 1: “s”; fig. 8, 2–3). Similar to *E. caffra* Hendel in the frontal plate and parafacial pitted in both sexes and foretrochanter sparsely spinulose in female, differing by the absence of femoral organ and asymmetrical sclerites of praepitium in male. Very similar to *E. sublatipennis* in having forefemur narrow, non-thickened in both sexes, asymmetrical sclerites of praepitium in male and absence of the femoral organ in female, differing by the frontal plate and dorsal half of the parafacial smooth, without expressed pits or wrinkles in both sexes, and sparsely spinulose foretrochanter and shorter and wider aculeus in female.

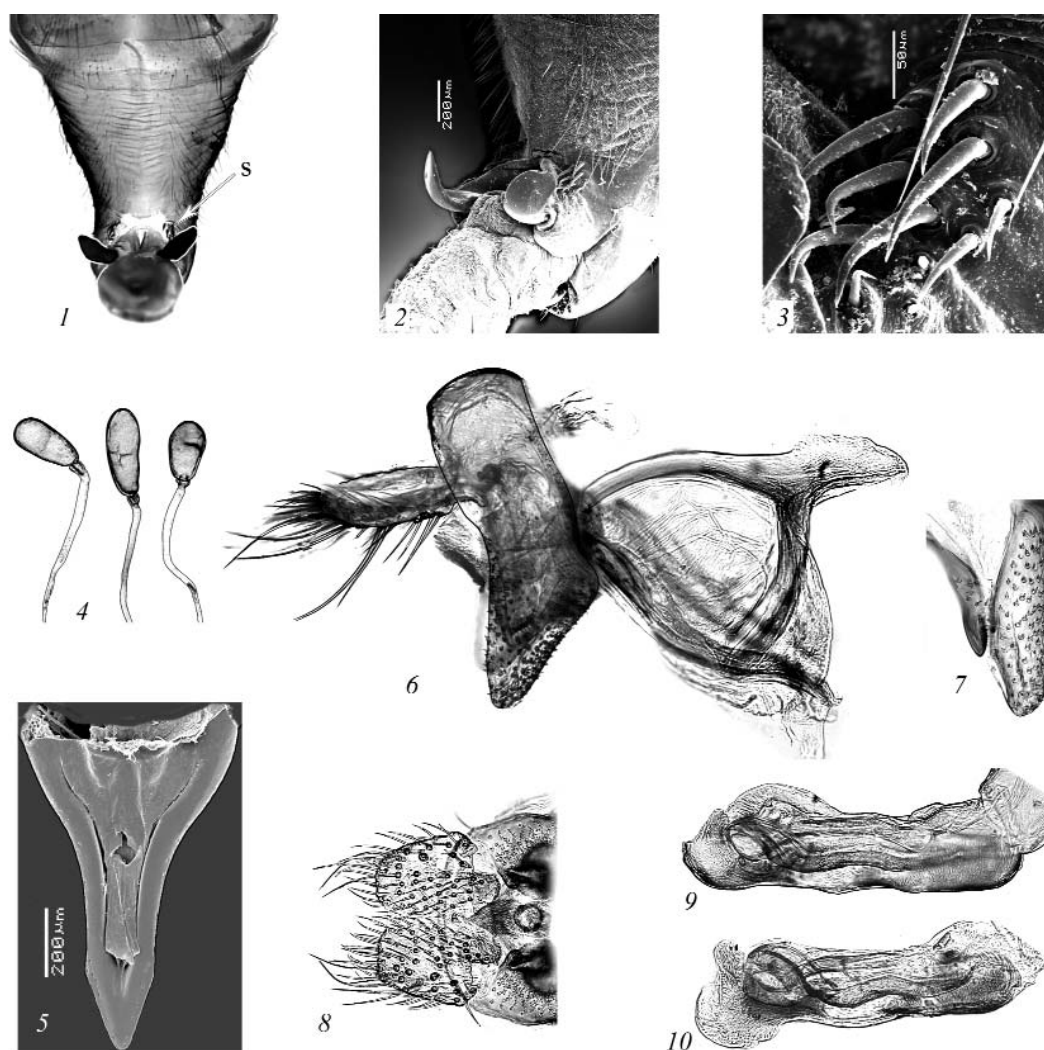


Fig. 8. *Eupyrgota latipennis*, non-type ♀ (1–5) and ♂ (6–10) from Yemen (ZMAN): 1 — ov scape; 2 — apex of ov scape, enlarged; 3 — group of thickened setulae anterior to hook, enlarged; 4 — spermathecae; 5 — aculeus, ventral; 6 — male terminalia, right (segments 6–8 and phallus detached); 7 — medial and lateral surstyli, posterior; 8 — proctiger, ventral; 9–10 — glans (9 — right, 10 — ventral).

Рис. 8. *Eupyrgota latipennis*, нетиповая ♀ (1–5) и ♂ из Йемена (ZMAN): 1 — основной членок яйцеклада; 2 — вершина основного членка яйцеклада, увеличено; 3 — группа утолщенных щетинок спереди от крюка, увеличено; 4 — сперматеки; 5 — лезвие яйцеклада, вентрально; 6 — терминалии самца, справа (сегменты 6–8 и фаллус удалены); 7 — сурстили, сзади; 8 — проктигер, вентрально; 9–10 — гланс (9 — справа, 10 — вентрально).

E. latipennis differs from both *E. caffra* and *E. sublatipennis* by having dark thickened setulae on ov scape anterior to hooks in female.

Redescription. Body yellow to reddish brown, usually without contrasting brown patterns, in darker specimens with yellow scutellum and crossband in middle of syntergite 1+2; setae brown to black, setulae reddish brown; mesonotum length 2.5–4.5 mm, wing length 9.1–13.0 mm in male, 9.3–13.5 mm in female (12.0 mm in holotype).

Head (fig. 7, 7–9) pale yellow to light brown, eye ratio 0.52–0.56, genal-eye ratio 0.22–0.30; first flagellomere-pedicel ratio 1.18–1.33; medial vertical seta 0.28 times as long as longest diameter of eye; lateral vertical seta 0.4–0.7 times as long as medial vertical seta, often indistinguishable from surrounding setulae; postocellar seta (sometimes 2 pairs) 0.7–0.9 times as long as medial vertical seta; ocellar seta (sometimes 2 pairs) as long as medial vertical seta; orbital seta 0.4–0.55 times as long as medial vertical seta; frons yellow; frontal vitta matt yellow with sparse setulae; frontal plate and parafacial matt or slightly subshining, shallowly pitted, with tiny yellowish brown setula in bottom of every pit; rarely dorsal part of parafacial and frontal plate wrinkled; antenna yellow; pedicel rather densely reddish brown setulose; first flagellomere microtrichose, 2.75 times as long as wide; face and frontogenal suture like in *E. caffra*; median carina 0.7–0.8 times as long as facial height; parafacial 1.4–2.0 times as wide as 1st flagellomere; gena with or without dark subocular spot; postgena brownish yellow; occiput yellow; median occipital sclerite with 2–4 pairs of postocellar setulae in holotype and 9–10 setulae at each side, often with two oblique brown marks in the middle, forming V- or Y-shaped mark (e. g., in holotype *A. ypsilon*); mouthparts as in *E. caffra*.

Thorax pale reddish yellow to brownish yellow, with notopleural triangle, anatergite and scutellum usually yellow; 2–5 pairs of scutellar setae (in holotype *O. latipennis*, 3 on left and 2 on right side, in holotype *A. ypsilon*, 2 pairs).

Legs uniformly reddish yellow; forecoxa with 12–15 fine setulae and 1–2 stronger setae; midcoxa with 1 strong seta on dorso-lateral part and row of 6–7 strong unmodified setulae 0.9–1.0 times as long as longest seta on anteroventral margin; hindcoxa with 1 strong seta on dorsolateral part, and 20–25 strong, posteroventrally directed setae on anteroventral margin 0.7–0.9 times as long as seta, forming no comb; foretrochanter with 6–7 sparse, but short spine-like setulae (fig. 7, 10); midtrochanter with 17–18 similar setulae; hindtrochanter fine and sparsely setulose; all femora with subequal 1 basiventral seta, 1 slightly shorter seta at basiventral one-third of femora and with thickened short setae ventrally, forming subequal anteroventral and posteroventral rows in apical half; forefemur neither wrinkled, nor thickened, 4.2–4.7 times as long as wide in female, and 4.5–4.8 in male.

Wing as in *E. caffra*; R_{4+5} bare in holotype *O. latipennis* and with 4–5 setulae basally to r-m crossvein in holotype *A. ypsilon*; wing-thorax ratio 3.2–3.6, vein R_{4+5} ratio 1.4–1.55, vein M ratio 0.5.

Female abdomen reddish yellow to reddish brown, similar to *E. caffra*, but usually paler; syntergite 1+2 1.2–1.4 times as long as tergites 3–6 combined; ov scape subshining reddish to brownish yellow, robust, 0.5–0.6 times as long as preabdominal tergites combined and slightly longer than wide on ventral side; hooks simple, like in *E. caffra*; ventral surface of ov scape anterior to hooks with 6–8 thickened dark brown setulae (fig. 8, 2–3); aculeus with base gradually transiting into long stiletto-like piercing part more than 2.0–2.5 times as long as its bulky base (fig. 8, 5); spermathecae oval (fig. 8, 4), 1.8–2.6 times as long as wide.

Male abdomen similarly colored; syntergite 1+2 1.1–1.3 times as long as tergites 3 and 4 combined; and 1.7–2.0 times as long as tergite 5; synsternite 1+2 5.2–6.0 times as long as wide at posterior margin; epandrium and hypandrium as in fig. 8, 6; glans of phallus with strongly asymmetrical sclerites of praeputium (fig. 8, 9–10), similar to those in *E. waga* Bigot (Korneyev, 2004: fig. 16, 4).

Remarks. *E. latipennis* is one of the most common and widespread pyrgotid species in the Old World. It reaches southern Africa, where all the three species of the group coexist. As these species were originally described and recognized from females, the problem of identity of males was solved by study of males of *E. latipennis* from Yemen, where there are no other *Eupyrgota* species. In this way, males of *E. latipennis* and *E. caffra* were separated; however, noticeable differences in morphology of male genitalia of *E. latipennis* and *E. sublatipennis* have not been found yet.

E. latipennis together with *E. sublatipennis*, and *E. waga* from western Palearctic Asia belong to the same lineage in the *latipennis* group; its monophyly is supported by having asymmetric praeputium sclerites, which are not known elsewhere in the family. This group may include some other Asian species in which the morphology of the phallus has not been studied properly.

Eupyrgota sublatipennis (Brunetti, 1929) (fig. 9)

Adapsilia sublatipennis Brunetti, 1929: 24; *Adapsilia (Eupyrgota) sublatipennis*: Steyskal, 1980: 557.

Type material. Holotype ♀ *Adapsilia sublatipennis*: **Zimbabwe**: “Hope Fountain / S. Rhodesia / (leg. N. Jones) / 2.12.1921 / Rhodesia Museum”, “Type [red bordered circle]”, “Holo / type [red bordered circle]”, “*Adapsilia / sublatipennis / Brun Type ♀ / Det. E. Brunetti 1926*”, “92 [red ink]”, “Holotype *Adapsilia latipennis* Brunetti verified J. E. Chainey 2002”, “BMNH # 252168” (BMNH).

Non-type material. **South Africa**: “Minastone [h/w illegible] / 16–15[sic!], 2.1919 / H. G. Breyer”, ♀ (Breyer) (NMPM); Northern Province: “Zoutpan, Zpbg. [Zoutpansberg]”, 15–30.11.1932, ♀ (van Son) (NMPM); North West Province: “Mogol Nature Reserve / Ellisras Distr.”, 23°58' S / 27°45' E, 19–23.11.1979, 3 ♀ (van Tonder); same locality, 19–23.11.1979, 3 ♀ (C. Kok) (SANC); Mpumalanga: Montrose Falls, 25°25' S 30°44' E, collected at light, 29.01.1989, ♀ (Oberprieler) (SANC); Gauteng: Pretoria, 28.12.1915, ♀ (Munro) (NMPM); **Zimbabwe**: “Hillside [Harare?], S. Rhod.”, 11.11.1922, ♀ (no oviscapae ventroapical thickened setae; no femoral organ; pale wing; thin femora; foretrochanter without brush! (uncommon for *sublatipennis*) (Swinbourne et Stevenson) (NMPM); Bulawayo, ♀ (L. G. [?] Arnold [?]); same locality, 8.12.1924, ♂ (Stewensol [sic!]) (NMPM).

Diagnosis. Frontal plate neither pitted, nor wrinkled, matt; parafacial matt, smooth, slightly wrinkled in ventral one-quarter; scutellum with 2–3 pairs of setae; of 40–60 thickened, hook-like setulae, forefemur not thickened, midfemur without femoral organ; oviscapae on ventral side anterior to ventral sensillar lobe and hooks with 4–5 thin yellowish setulae on each side. Differs from both *E. latipennis* and *E. caffra* by having foretrochanter with dense brush in female and almost smooth frontal plate and parafacial. Similar to *E. latipennis* in having forefemur narrow, non-thickened in both sexes, asymmetrical sclerites of praeputium in male and absence of femoral organ in female, differing by frontal plate and dorsal half of parafacial smooth, in both sexes, thin yellowish setulae anterior to oviscapae sensillar lobes, and shorter and wider aculeus in female. *E. sublatipennis* differs from *E. caffra* by having asymmetrical sclerites of praeputium in male and absence of femoral organ in female.

Redescription. Body yellow to reddish brown, without contrasting brown patterns, in darker specimens with scutellum, middle of syntergite 1+2 and posterior margins of tergites 4–6 yellow; setae brown to black, setulae reddish brown; mesonotum length 2.3–3.5 mm (3.0 mm in holotype), wing length 7.5 mm in male, 8.2–10.2 mm in female (8.9 mm in holotype).

Head (fig. 9, 3, 4) pale yellow, eye ratio 0.50–0.56, genal-eye ratio 0.21–0.33; first flagellomere–pedicel ratio 1.0–1.27; frons yellow; frontal vitta, frontal plate and parafacial matt smooth or with very small and shallow pits (fig. 9, 4, 5); antenna yellow; first flagellomere 2.5–2.7 times as long as wide; face like in *E. caffra*; median carina 0.75–0.82 times as long as facial height; parafacial 1.8–2.0 times as wide as 1st flagellomere; occiput yellow, sometimes with pale brown marks.

Thorax coloration as in *E. latipennis*; 2–3 pairs of scutellar setae.

Legs as in *E. latipennis*; foretrochanter mostly with 40–60 thickened, hook-like setulae forming brush (fig. 9, 7, 8) in female, sparsely setulose in male and in aberrant

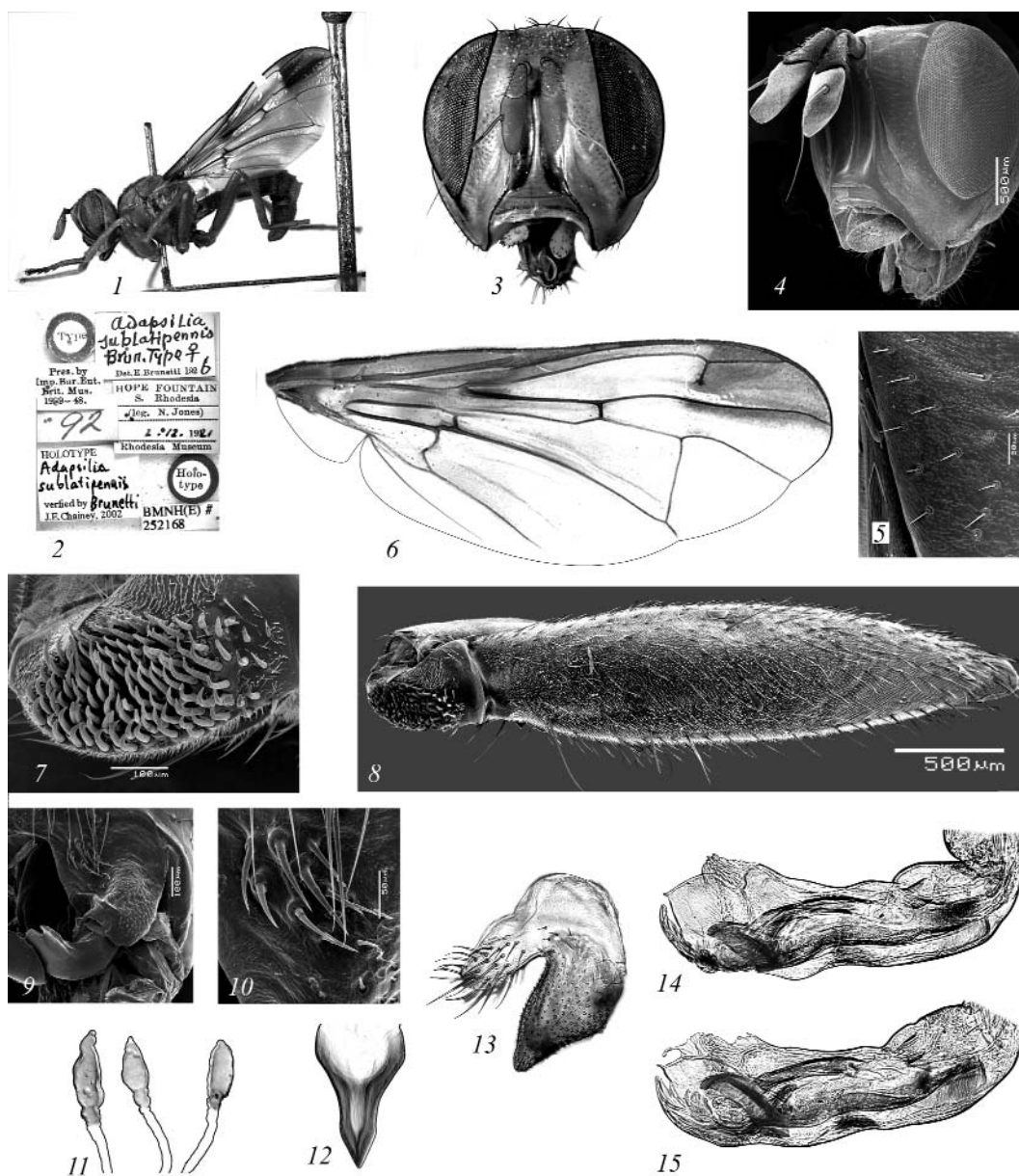


Fig. 9. *Eupyrgota sublatipennis*, holotype ♀ (BMNH) (1–3, 6) and non-type ♀ from Zimbabwe (NMPM) (4, 5, 7–15): 1 – habitus, left; 2 – labels; 3, 4 – head (3 – left, 4 – left anterior); 5 – parafrontal; 6 – wing; 7 – foretrochanter, enlarged; 8 – foretrochanter and forefemur posteroventral; 9 – apex of ovipositor; 10 – group of thickened setulae anterior to hook, enlarged; 11 – spermathecae; 12 – aculeus, ventral; 13 – male terminalia, right (segments 6–8, hypandrium and phallus detached); 14–15 – glans (14 – right, 15 – ventral) (1–3, 6 – from dissecting microscope; 4–5, 7–10 – SEM; 11–15 – from compound microscope).

Рис. 9. *Eupyrgota sublatipennis*, голотип ♀ (BMNH) (1–3, 6) и нетиповая ♀ из Зимбабве (NMPM) (4, 5, 7–15): 1 – общий вид, слева; 2 – этикетки; 3, 4 – голова (3 – слева, 4 – слева спереди); 5 – скула; 6 – крыло; 7 – передний вертлуг, увеличено; 8 – передний вертлуг и переднее бедро задне-вентрально; 9 – вершина основного членика яйцеклада; 10 – группа утолщенных щетинок спереди от крюка, увеличено; 11 – сперматеки; 12 – лезвие яйцеклада, вентрально; 13 – терминалии самца, справа (6–8-й сегменты, гипандрей и фаллос отделены); 14–15 – гланс (14 – справа, 15 – вентрально) (1–3, 6 – фото с бинокля; 4–5, 7–10 – фото со сканирующего электронного микроскопа; 11–15 – фото со светового микроскопа).

female from Hillside (Zimbabwe); midtrochanter with 20–25 similar, but thinner and sparser setulae in female; hindtrochanter and femora as in *E. latipennis*.

Wing as in *E. latipennis*, subapical spot usually pale brown, pterostigma and area; R_{4+5} bare; wing-thorax ratio 3.0–3.5, vein R_{4+5} ratio 1.5–1.7, vein M ratio 0.6.

Female abdomen reddish to brownish yellow, similar to *E. latipennis*; syntergite 1+2 as in *E. latipennis*; oviscap subshining reddish yellow, 0.58–0.60 times as long as preabdominal tergites combined and 1.10–1.15 as long as wide on ventral side; hooks simple, or bilobate; ventral surface of oviscap anterior to hooks with 6–12 thin yellowish setulae; aculeus with short piercing part 1.4–1.8 times as long as its bulky base; spermathecae oval (fig. 9, 11), 1.3–1.6 times as long as wide.

Male abdomen brownish yellow; syntergite 1+2 with yellow crossband at middle, 1.3 times as long as tergites 3 and 4 combined; and 2.2 times as long as tergite 5; synsternite 1+2 4.8 times as long as wide at posterior margin; epandrium and hypandrium not dissected; glans of phallus with asymmetrical sclerites of praeputium.

Remarks. *E. sublatipennis* is restricted in its distribution to southeastern Africa. It occurs sympatrically with *E. caffra*, but not with the widespread *E. latipennis*, which only reaches Namibia. From the available material, it is not clear if *E. sublatipennis* actually represents only a subspecies of *E. latipennis*.

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