

Afrotropical Psilidae (Diptera).

1. Genera *Belobackenbardia* gen.n. and *Psila* Meigen, 1803

Афротропические двукрылые семейства Psilidae (Diptera).

1. Роды *Belobackenbardia* gen.n. и *Psila* Meigen, 1803

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KEY WORDS: Psilidae, systematics, new species, Afrotropical Region.

КЛЮЧЕВЫЕ СЛОВА: Psilidae, систематика, новые виды, Афротропическая область.

ABSTRACT: New genus *Belobackenbardia* gen.n. with three new species: *B. cornicula*, *B. munroi* and *B. stuckenbergiorum* spp.n. are described. The genus is represented by three Afrotropical species. *Belobackenbardia* represents the earliest diverging lineage in evolutionary history of Psilidae. On these grounds new subfamily Belobackenbardiinae subfam.n. was established. The genus *Psila* Meigen, 1803 contains four afrotropical species including *P. freidbergi* sp.n. New subgenus *Afropsila* subgen.n. with a single species *Psila (Afropsila) dimorpha* Verbeke, 1956 is described.

РЕЗЮМЕ: В работе описаны новый род *Belobackenbardia* gen.n. с тремя видами: *B. cornicula*, *B. munroi* и *B. stuckenbergiorum* spp.n. *Belobackenbardia* представляет самую раннюю дивергенцию в эволюционной истории семейства Psilidae. На этом основании выделено новое подсемейство Belobackenbardiinae subfam.n. Род *Psila* Meigen, 1803 представлен четырьмя видами в афротропической области, включая один новый для науки *P. freidbergi* sp.n. Описан новый подрод *Afropsila* subgen.n. с единственным видом *Psila (Afropsila) dimorpha* Verbeke, 1956.

The basic contribution in fauna of Afrotropical Psilidae was that of Verbeke [1952, 1956, 1963, 1968]. Before his works there were recorded five species of *Loxocera* Meigen, 1803 and one species of *Chyliza* Fallén, 1820 (see Cogan [1980]). In addition one species *Chyliza monika* omitted in the list of the Afrotropical species [Cogan, 1980] has been described by Lindner [1956; we consider a single known female of this species to be *Ch. latifrons* Verbeke, 1952 or *Ch. hackarsi* Verbeke, 1952]. Verbeke described 40 species in all including two species of *Psila* Meigen, 1803, 11 species of *Loxocera* not counting two synonymized by him [1963], genus with a single species *Loxocerosoma psiloides* Verbeke, 1968 (this work was also omitted in the Afrotropical Catalogue) and 27 species of *Chyliza*.

The present work is based on material received from the following institutions: Entomological Collection, Department of Zoology, Tel Aviv University (TAU), Israel; Natal Museum (NMSA), Pietermaritzburg, South Africa; California Academy of Science (CAS), San Francisco, USA; United States National Museum (USNM), Washington, DC, USA;

Genus *Belobackenbardia* Shatalkin gen.n.

Figs 1–2, 6.

Type species: *Belobackenbardia cornicula* Shatalkin sp.n.

DESCRIPTION. Body yellow basically. Head (Fig. 1–2) not triangular in profile and reminds more that of *Chyliza* than *Psila*: face yellow, nearly perpendicular, not retreating. Frontofacial transition arched. Width of frons about 2.2–2.4 times less than width of head. Eye oval, with sloping concave hind margin. Gena very low, more than 5.0–5.5 times less than height of eye. There is well developed brush of white short hairs extending in form narrow stripe along concave part of hind margin of eye (Fig. 2). Unlike *Chyliza* this brush not placed close to eye margin but on some distance from latter. Parafacials surveyed from above silverly pruinose as in *Chyliza*. Occiput in lateral view more or less straight (not convex). 3rd antennal segment short, about 2.0–2.3 times as long as its width. Arista black, thickened in the base, with long black hairs; width of its feathering equal to width of 3rd antennal segment. Thorax yellow or with black mesonotal stripe. Anterpronotum moderately developed; postcoxal bridge undeveloped. Mesopleuron in lower part with bunch of white hairs. Wing (Fig. 1) with anal lobe undeveloped; alula narrow with convex margin; anal cell narrow parallel-sided and long, about 8 times as long as its width; 2nd basal cell noticeably shorter than anal cell in basal part of wing; discoidal cell moderately long; R_{2+3} slightly curving forwards and arching before tip; last section of M_{3+4} in basal part strongly curving forwards. Section of M_{1+2} between *r-m* and *dm-cu* about 1.6 times more than previous one and equal to ultimate one. Coxae with black bristles on margin. Sternopleuron before coxa with 1–2 black bristles. Hind femur without apical densely pilose pad on its lower side. Abdomen (in male) about 1.2–1.3 as long as thorax. Genitalia (Fig. 3–7) show peculiarity; basally epandrium has a pair of broad appendages (with



Fig. 1. *Belobackenbardia cornicula* Shatalkin sp.n., ♂, lateral view.

Рис. 1. *Belobackenbardia cornicula* Shatalkin sp.n., ♂, сбоку.

the excepting of *B. stuckenbergiorum* sp.n.); surstyle of another type as compared with that of *Chyliza*, it is a continuation of dorsal line of epandrium and fused with the latter (plesiomorphic condition), and bilobate apically. Bacilliform sclerite is divided on two sclerites (externally these sclerites bear a great resemblance to gonopods). Hypandrium with a pair of lateral processes (gonopods?) having additional lobe medially; parameres well developed. Aedeagus sabre-shaped, upcurved; aedeagal apodeme is not found. Female abdomen

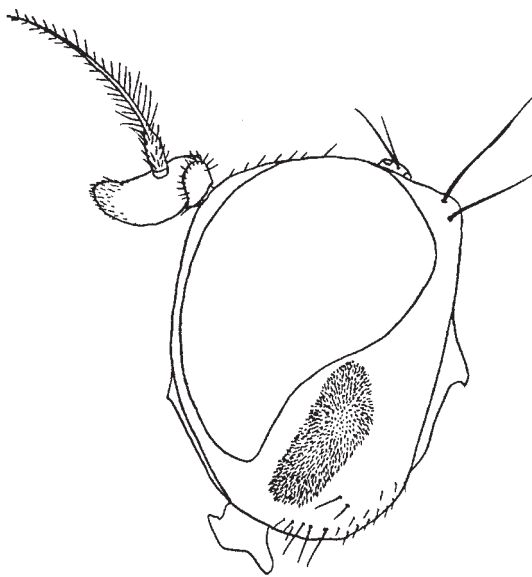


Fig. 2. *Belobackenbardia cornicula*, head.

Рис. 2. *Belobackenbardia cornicula*, голова.

with ovipositor sclerotized. 2 *vt*, *pvt* absent, or present or absent; 1 *npl*, 1 *sa*, 1 *pa*, 1 *dc*, scutellum with a pair of large marginal bristles, and with a pair of short hairlike bristles above marginal ones; pteropleuron without hairs.

Dr. Brian R. Stuckenberg kindly informed me about biotope localities of new genus. It distributed in a mountain range with indigenous *Podocarpus* forest where occurs on low undergrowth or possibly on low vegetation often along the sides of a small streams.

DIAGNOSIS. The most marked character supporting this new genus includes the presence of genal brush of white hairs. These hairs can be homologized with an analogous brush of more shorter white hairs in *Chyliza*. The distinctions concern the position of brush on head. In *Chyliza* it is placed right on the eye margin, in *Belobackenbardia* — a little way off. In these two genera this condition is coupled with another character of the presence of silver parafacials. All remaining psilid taxa do not show these two conditions. The genal brush occurs also in two allied species of *Loxocera*, European *L. aristata* (Panzer, 1801) and *L. glandicula* Iwasa, 1993 from Nepal and Kashmir, but the second condition of silver parafacials is not present in this group.

D. McAlpine [1997] concluded that the presence of dense minute parafacial macrotrichia must be considered as a ground-plan condition of Diopsoinea (Diopsoidea + Syringogastridae). Both families are also characterized by the presence of genal brush. I consider these two conditions to be synapomorphic for Diopsoidea s.l. (including Megamerinidae, Strongylophthalmyiidae, Tanypezidae and except possibly Gobiidae).

Although *Belobackenbardia* is similar to *Chyliza* in mentioned two characters, there are the important differences between these genera. *Chyliza* is distinguished in having anal cell shorter than 2nd basal, and also by the presence of well developed postcoxal bridge, enlarged (callus-like) anatergal area of laterotergite and in possessing 3 (or 2 by way of exception) pairs of scutellar bristles.

The genitalia of *Belobackenbardia* are rather unique among Psilidae. Epandrium is very massive and this condition is reminiscent of that of neither *Chyliza* nor genera of Psilinae. Epandrial organization of *Chyliza* most closely resembles that of *Loxocera* s.l. and *Psila* s.l. Equally hypandrium and aedeagus show unusual for psilids morphology. At last, is unique among Schizophora in possessing upcurved aedeagus. From all this one can conclude first, that *Belobackenbardia* (equally with *Chyliza*) is a plesiomorphic member of Psilidae, second that this genus must have arisen in earliest stages of the evolution of the family, at least before dividing into *Loxocera* s.l. and *Psila* s.l.

TAXONOMIC REMARKS. *Belobackenbardia* is a difficult genus to attempt to find its place among psilids. At first because is so like with *Psila* s.l. in general appearance I considered it to be modified *Psila* fly. More detailed analysis of characters made me change this opinion.

The family Psilidae was seen up to now as containing two subfamilies: Chylizinae and Psilinae. The second comprises *Loxocera* s.l. and *Psila* s.l., diagnosed externally by of head triangular in profile with face retreating and parafacials without silverly pruinose. These two derived characters can be supplemented with plesiomorphic condition of lacking postcoxal bridge. As so defined Psilinae does evidently not include *Belobackenbardia*. The subfamily: Chylizinae is known to contain a single genus *Chyliza*. Its most obvious synapomorphies (postcoxal bridge, enlarged anatergal area, shortened anal cell) have already been mentioned. There are no synapomorphies showing the monophyly of {*Belobacken-*

bardia + *Chyliza*}. All characters connecting these two genera are plesiomorphic. Thus, external morphology gives no evidence to support a closer phylogenetic relationship *Belobackenbardia* with *Chyliza* than with *Loxocera* or *Psila*. What light does genital structure throw on phylogenetic position of *Belobackenbardia*?

Unlike *Belobackenbardia* and *Chyliza* a special feature of genitalia of Psilinae, the lack of surstyli must be noted. However some significant similarities outweighing distinctions exit with respect to overall structure and configuration of genitalia of Chylizinae and Psilinae. Epandrium of *Chyliza* forms a simple structure at least superficially similar to that of Psilinae. Hypandrium and aedeagal apodeme are also similar. And what is more there are weighty reasons to believe the genital structure of Psilinae to be derived from that of *Chyliza*, i.e. that this subfamily has derived from *Chyliza*-like ancestor. Unlike Palaearctic species some Oriental *Chyliza* (*cylindrica* group) lack surstyli but possesses parameres showing the type of genitalia no differing from that of some *Loxocera* [Shatalkin, 1998a].

One can suppose that genus *Belobackenbardia* lies somewhat apart from the rest Psilidae. With phylogenetic point of view this suggests a derivation of *Belobackenbardia* closer to the base of Psilidae, in other words that first divergence within family was a bifurcation that produced *Belobackenbardia* and remaining psilids. In that way the *Belobackenbardia* divergence is followed by that of *Chyliza*, and then by the branchings of *Loxocera* s.l. and lineage leading to *Psila* s.l. In accordance with this the most plausible decision with regard to taxonomic position of *Belobackenbardia* is to assign the genus to separate subfamily Belobackenbardiinae.

Subfamily Belobackenbardiinae subfam.n.

DIAGNOSIS. It coincides with that for genus.

The subfamily Belobackenbardiinae contains one genus *Belobackenbardia* with 3 species confined to the South Africa. All of them are new and are described below.

TAXONOMIC REMARKS. Upcurved aedeagus puts this subfamily in a peculiar position. On its structure aedeagus of this type corresponds to plesiomorphic (groundplan) condition for Cyclorrhapha and up to now was known only among Aschiza, in particular, in Platypezinae (Platypezidae), Chalarinae (Pipunculidae), and three primitive syrphid genera *Spheginobaccha* de Meijere, 1908, *Nausigaster* Williston, 1884 and *Microdon* Meigen, 1803 [Shatalkin, 1995, 1998b]. In mentioned three families (Platypezidae, Pipunculidae and Syrphidae) the cyclorrhaphous aedeagus have arisen independently. Now it is found that in Schizophora the origin of cyclorrhaphous aedeagus has also occurred more than once. Taking into account the primitiveness of upcurved aedeagus, Belobackenbardiinae should be considered as a group that most closely approaches the ancestral Schizophora. As a whole, however, family Psilidae is sufficiently derived. It follows from this that upcurved aedeagus was also peculiar to primitive families of Schizophora and that it was widespread in the past, since we do not see it in the present. One gathers the impression that in historical aspect cyclorrhaphan families have two-layered structure. In the past species with primitive orthorrhaphous genitalia existed, in due course they were supplanted by species with cyclorrhaphous genitalia. In Aschiza species with upcurved aedeagus are sufficiently numerous, in Schizophora they either disappeared or is rare and, judging by *Belobackenbardia*, must have relic distribution.

Belobackenbardia cornicula Shatalkin, sp.n.

Figs 1–5, 8.

MATERIAL. Holotype: ♂, S.Africa, Mariepskop, TVL 2430 DB, 8.IV. 1964 (E.H.). Paratypes: 4 ♂♂, 4 ♀♀, same locality as holotype, 8.IV. 1964 (E.H.); 1 ♂ N.Transvaal, Entabeni Forest Station Zoutpansberg Range, I. 1975 (Stuckenberg); 1 ♀, Albany, 26.VII.1953 (Myers); 1 ♀, Cape Prov., Hogsback, Forest and forest margin, 13–16.XII. 1985 (Londt); 1 ♀, Alexanoria Distr., Doornkloof Forest Reserve, 11.XII. 1967 (B&P. Stuckenberg); Cape Prov., Grahamstown, 6.I. 1980 (Brothers).

Dr. B.R. Stuckenberg kindly informed me that the Mariepskop locality is represented a small strip of forest bordering a mountain stream near its source on a steep escarpment; the specimens probably came from herbage in shade under the forest trees. The Doornkloof Forest Reserve locality represents an interesting natural forest growing in a sandy site close to the sea, in an area where the rainfall is unusually high.

DESCRIPTION. MALE. Head yellow. Frontal triangle not reaching fore margin of frons, it black excepting for its fore extremity. Ocellar triangle also black. Occiput behind ocellar triangle with black spot. Antennae yellow; 3rd segment with dark spot around arista as in European *Psila fimetaria* (Linnaeus, 1761); it straight on upper margin and convex in apical lower part, about 2 times as long as its width. Arista dark brown thickened in base, with long rather thick hairs; width of its feathering equal to width of 3rd antennal segment. Palpi yellow. Thorax yellow; mesonotum with black median stripe narrow anteriorly and in width of distance between *dc* posteriorly; scutellum with a similar stripe broad in the base and in width of distance between marginal bristles apically; metanotum dark brown; there are group of black hairs under hind spiracle. Legs yellow; hind tibia and tarsi brownish. Middle tibia with 1 spur. Wing transparent. Halteres yellow. Abdomen yellow; dorsal side all tergites broadly dark brown; lateral margins of abdominal tergites arched. Genitalia — Fig. 3–5: basal appendages of epandrium massive; surstyle bilobate apically with short lobes; basally surstyle with dorsally oriented narrow conic appendage.

Chaetotaxy. 2 *vt*, *pvt* and *or* absent, 1 *npl*, 1 *sa*, 1 *pa*, 1 *dc*, scutellum with 2 large marginal bristles and with a pair of hair-like ones above. All bristles black.

Body length 5.4 mm; wing length 5.0 mm.

FEMALE very similar to male. Lateral margins of abdominal tergites straight. Ovipositor with sclerotized tergite and sternite VIII (Fig. 8).

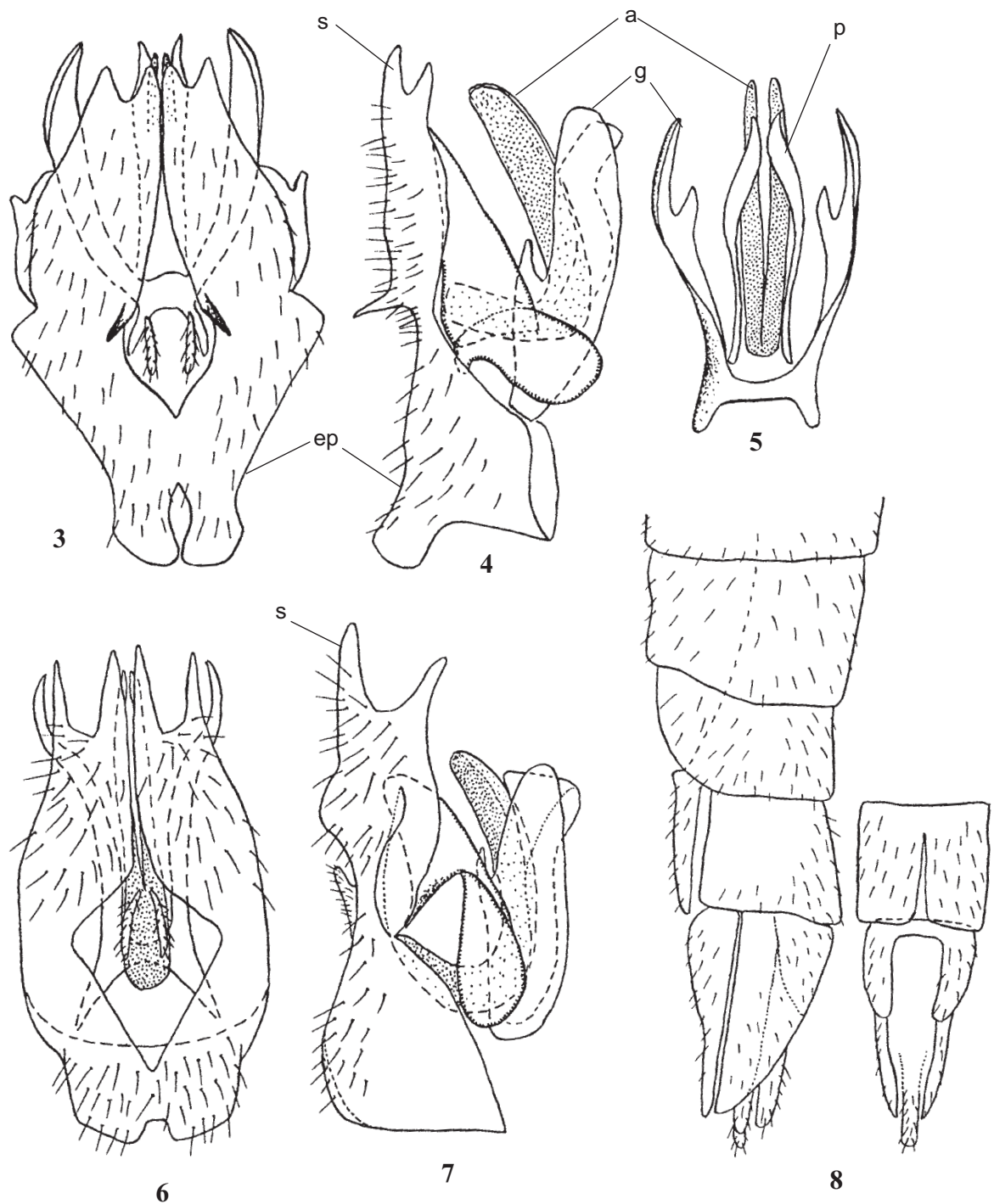
DIAGNOSIS. This species may be confused with *B. munroi* sp.n., described below.

Belobackenbardia munroi Shatalkin sp.n.

Figs 6–7.

MATERIAL. Holotype: ♂, S.Africa, East London, 3.VIII. 1924 (Munro). Paratypes: 1 ♂, 1 ♀, same locality as holotype, 3–4.VIII. 1924 (Munro); 1 ♀, East London, 24.V. 1922 (H.K. Munro).

DESCRIPTION. MALE. Head yellow. Frontal triangle not reaching fore margin of frons, it black excepting for its fore extremity. Ocellar triangle also black. Occiput behind ocellar triangle with black spot. Antennae yellow; 3rd segment with undeveloped spot around arista; it straight on upper margin and convex in apical lower part, about 2 times as long as its width. Arista dark brown thickened in base, with long rather thick hairs; width of its feathering equal to width of 3rd antennal segment. Palpi yellow. Thorax yellow; mesonotum with black median stripe narrow anteriorly and in width of



Figs 3-8. Male terminalia of *Belobackenbardia cornicula* (3-5) and *B. munroi* (6-7), and ovipositor of *B. cornicula* (8); dorsal view (3, 6), lateral view (4, 7), hypandrium, ventral (8). The following abbreviations are used: *a* — aedeagus; *ep* — epandrium; *g* — gonopod; *p* — paramere; *s* — surstyle.

Рис. 3-8. Гениталии самцов *Belobackenbardia cornicula* (3-5), *B. munroi* (6-7), и яйцеклад *B. cornicula* (8); дорсальный вид (3, 6), вид сбоку (4, 7), гипандрий, вентральный вид (8). Используются следующие сокращения: *a* — эдеагус; *ep* — эпандрий; *g* — гонопода; *p* — парамера; *s* — сурстиль.

distance between *dc* posteriorly; scutellum with a similar stripe broad in the base and in width of distance between marginal bristles apically; metanotum dark brown; there are group of black hairs under hind spiracle. Legs yellow; hind tibia and tarsi brownish. Middle tibia with 1 spur. Wing transparent. Halteres yellow. Abdomen yellow; dorsal side all tergites broadly dark brown; lateral margins of abdominal tergites arched. Genitalia — Fig. 6–7: basal appendages of epandrium is not quite so large as in *B. cornicula* sp.n.; surstylar apical lobes longer than in *B. cornicula* sp.n.

Chaetotaxy. 2 *vt*, *pvt* and *or* absent, 1 *npl*, 1 *sa*, 1 *pa*, 1 *dc*, scutellum with 2 large marginal bristles and with a pair of hair-like ones above. All bristles black.

Body length 5.5 mm; wing length 4.8 mm.

FEMALE very similar to male. Mesonotal median stripe slightly developed. Lateral margins of abdominal tergites straight. Ovipositor sclerotized

DIAGNOSIS. Externally this species is very similar to *B. cornicula* sp.n., differing in structure of genitalia (Fig. 6, 7). In particular, appreciable distinctions may be seen in proportions of epandrial and surstylar appendages.

I take pleasure in naming this species for the known dipterist H.K.Munro.

Belobackenbardia stuckenbergiorum Shatalkin sp.n.

MATERIAL. Holotype: ♂, S. Africa, port St. Johns, 3129 DA, 16.I. 1970 (B&P. Stuckenberg). Paratypes: 1 ♂, same locality as holotype (B&P. Stuckenberg).

New species was collected from low vegetation growing in shade in the very fine *Podocarpus* montane forest.

DESCRIPTION. MALE. Head yellow. Frons in anterior and posterior thirds yellow; in middle third on each side along eyes broadly black; these black stripes with indistinct hind margin on a level of ocellar triangle and archedly narrowed to anterior margin of eye. Frontal triangle brownish; at different visual angles it seems to be sometimes yellowish, sometimes dark brown. Ocellar triangle black. Antennae yellow; 3rd segment tapering with dark spot around arista. Arista dark brown thickened in base, with long rather thick hairs; width of its feathering slightly less than width of 3rd antennal segment. Palpi yellow. Thorax yellow; mesonotum with a pair of pale and narrow lateral stripes, extending from suture to *dc*; metanotum without brownish spot; black hairs under hind spiracle absent. Legs yellow; hind tibia and tarsi dark brown. Middle tibia with 1 spur. Wing yellowish with yellow veins and with light darkening extending from *r-m* to apex. Halteres yellow. Abdomen yellow; lateral margins of abdominal tergites straight. Epandrium without distinct lobes.

Chaetotaxy. 2 *vt*, *pvt* absent, 1 very large *or*; 1 *npl*, 1 *sa*, 1 *pa*, 1 *dc*, scutellum with 2 large marginal bristles and with a pair of hair-like ones above. All bristles black.

Body length 4.0 mm; wing length 4.1 mm.

FEMALE unknown.

DIAGNOSIS. This species differs well from first two. Its wing with brownish stripe in apical half, mesonotum with a pair of brownish postsutural stripes, metanotum without brownish spot; besides, lateral margins of abdominal tergites were not arched in males.

The new species is dedicated to Brian and Pamella Stuckenberg.

Psila Meigen, 1803

This genus is very poorly represented in Afrotropical. Only two species were mentioned in the literature. The both

were described by Verbeke: *P. aephiopica* [1952] and *P. dimorpha* [1956]. Principally because the subgeneric system of *Psila* s.l. is not worked up the taxonomic relationships of these both species remain equivocal. Verbeke considered first species to belong *Chamaepsila* Hendel, 1917, interpreted by many European dipterists as a separate genus [see Soós, 1984]. Another species Verbeke described as *Psila*. It however does not belong to *Psila* s.str. (considered as *P. fimetaria* group). Taking this into account Cogan [1979] placed this species in subgenus *Chamaepsila* in Afrotropical Catalogue. One cannot admit this decision to be good. To accept it means to wash away the borders of group. *Chamaepsila* as opposed to *Psila* s.str. includes species with very different character sets and might be a paraphyletic assemblage. It may be redefined as a monophyletic group by restricting its membership to species diagnosed by such characters as 3 *vt*, 1–2 *dc*, yellow head and legs. In context of this definition *P. aephiopica* must be placed in *Chamaepsila*. *P. dimorpha* however differs from species of both *Chamaepsila* and *Psila* s.str. This species is so distinct that we recognise it as a new subgenus for that we introduce the name *Afropsila*.

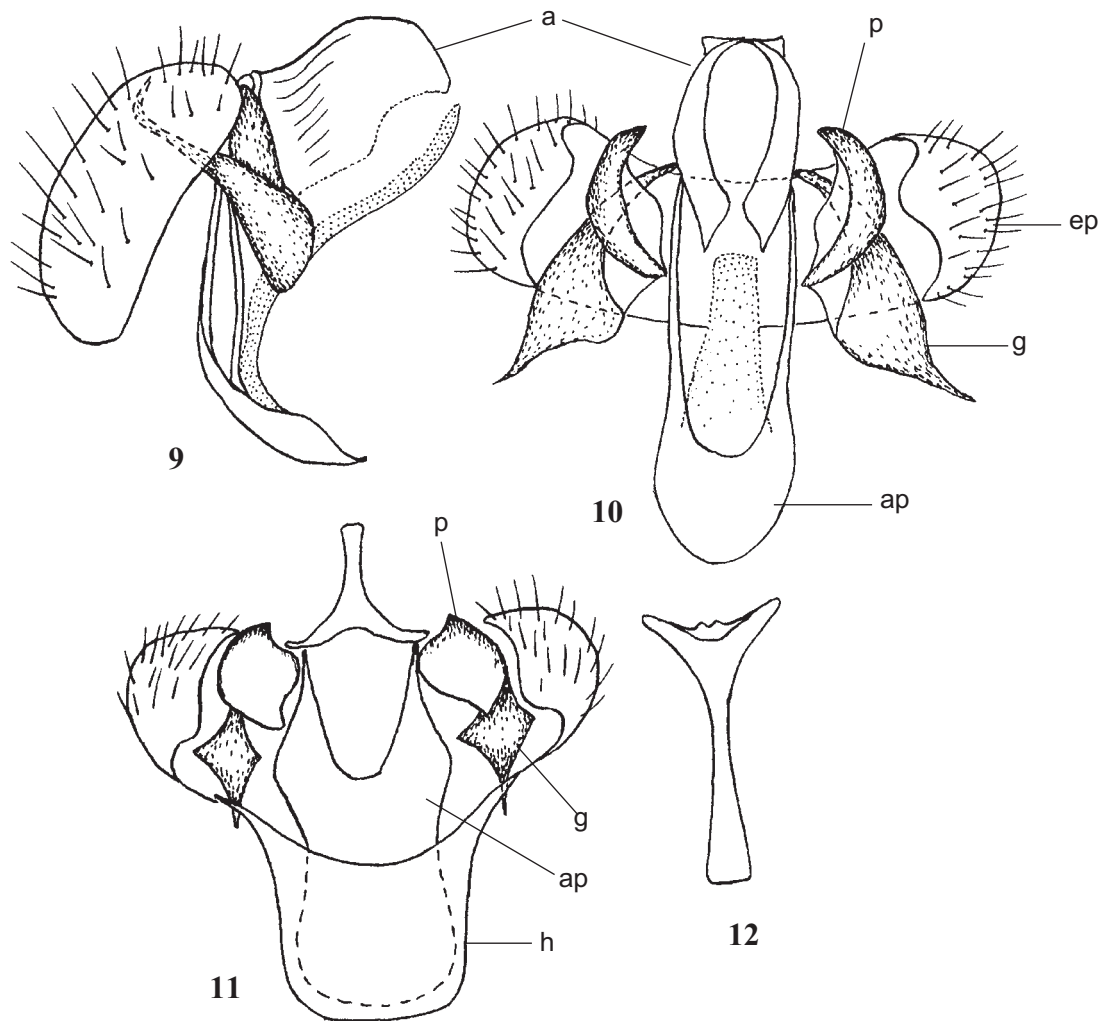
Besides mentioned two species I have found in African material examined one new species described below as *Psila* (*Chamaepsila*) *freidbergi* sp.n. and also two females of fourth species. Preliminary I attributed these two females to *P. (Chamaepsila) nigricornis* Meigen, 1826.

Subgenus *Afropsila* Shatalkin subgen.n.

Figs 9–10.

Type species: *Psila dimorpha* Verbeke, 1956.

DESCRIPTION. Body slender, yellow basically. Head triangular in profile, face yellow, strongly retreating. Frontofacial angle acute. Height of frons equal to or slightly more than its width. Eye with nearly straight hind margin. Gena very high, only about 1.5 times less than height of eye. Genal brush of white short hairs absent. Parafacials without silver pruinose. Occiput in lateral view more or less convex. 3rd antennal segment short, about 1.7 times as long as its width. Arista white (narrowly yellow basally) with short white hairs; width of its feathering equal to its thickened basal part. Thorax mostly yellow. Anterpronotum slightly developed; postcoxal bridge undeveloped. Mesopleuron in lower part without tuft of white hairs directed downwards. Wing with anal lobe slightly developed; alula narrow with convex margin; 2nd basal cell noticeably shorter than anal cell in basal part of wing but both practically equal distally; A_1 concave inside anal cell; CuA_2 sometimes forms at acute angle with respect to M_{3+4} ; discoidal cell moderately long; R_{2+3} not arching before tip; last section of M_{3+4} nearly straight. Halteres yellow in male and blackish in female. Sternopleuron before coxa without black bristles. Legs long: hind femur equal to length of thorax. Hind femur without apical densely pilose pad on its lower side. Abdomen about 1.2–1.3 as long as thorax. Genitalia (Fig. 9–10) with aedeagus geniculate: basal part short with trapeziform sclerite dorsally, apical one broadly tubular with a pair of lateral sclerites in upper part and unsclerotized plate going from aedeagal apodeme and covering aedeagus from below; hypandrium desclerotized; parameres well developed and characterized nonapical location with respect to aedeagal apodeme; gonopods fused with parameres. Female ovipositor unsclerotized. 2 *vt*, *pvt* absent (in one specimen well developed), or absent; 1 *npl*, sometimes vestigial, 1 *sa*, *pa* absent, 1 *dc*, scutellum with a pair of large marginal bristles (in one specimen with 2 pairs).



Figs 9–12. Male terminalia of *Afropsila dimorpha* Verbeke (9–10) and *Chamaepsila freidbergi* Shatalkin sp.n. (11–12); lateral view (9), ventral view (10–11), aedeagus (12). *ap* — aedeagal apodeme; *b* — hypandrium (ventral sclerite); other abbreviations as in Figs 3–8.

Figs 9–12. Гениталии самцов *Afropsila dimorpha* Verbeke (9–10) и *Chamaepsila freidbergi* Shatalkin sp.n. (11–12); вид сбоку (9), ventральный вид (10–11), эдеагус (12). *ap* — аподема эдеагуса; *b* — гипандрий; другие сокращения как на рис. 3–8.

DIAGNOSIS. With regard to the male genital apparatus this subgenus is sufficiently derived and differs well from both *Chamaepsila* and *Psila* s.str. Two principal components can be recognized in the hypandrium of *Psila* s.l., namely a ventral hypandrial sclerite (Fig. 11) and a pair of latero-dorsal sclerites that I consider to be the derivatives of gonopods. In *Afropsila* I have not found ventral hypandrial sclerite; gonopods are very developed and broadly fused with parameres (Fig. 10). The aedeagal structure resembles that of Eastpalaeartic *Synaphopsila* Hendel, 1933. Parameres are placed basally as in *Freyopsila* Shatalkin, 1986, *Pseudopsila* Johnson, 1920 and *Synaphopsila* [see Shatalkin, 1986]. External distinctive characters of *Afropsila* subgen.n. as compared with other groups of *Psila* s.l. include the presence of slight *npl*, the absence *pa*, and also *pvt* in type-species (see Remarks), white arista, black halteres in female (at least in type-species), undeveloped anal lobe of wing; anal cell with *A*₁ concave. Besides, members of subgenus are distinguished by slender body and

long legs. In particular, hind femur as long as thorax whereas in other *Psila* hind femur about 1.3–1.5 times less than length of thorax.

REMARKS. There are a few specimens differing in some characters from typical ones. One female from Cameroon (Rt. N6, Balibatibo, West of Bamenda, 20.XI. 1987, Kaplan) is distinguished by well developed stout *pvt*. Frons in posterior half along eyes broadly dark brown. Another specimen has two pairs stout bristles on scutellum. Some females have halteres yellowish not darkening as in the most of cases. We have got a scanty material to do definite conclusions about taxonomic status of these specimens.

Finally, it should be mentioned *Psila* (*Tetrapsila*) *longipennis* Séguéy, 1936 from the Azores. Though I have not seen this species but I can easily conceive what kind fly it is. Externally it resembles *P. dimorpha*. The unique for Psilidae character of the presence of black halteres in female is an additional argument in favour of opinion that *P. longipennis* may belong to *Afropsila*.

While vagueness in respect to *P. longipennis* remains we will consider subgenus *Afropsila* to be known by a single species *P. dimorpha*.

Psila (Afropsila) dimorpha Verbeke, 1956
Figs 9–10.

Psila (Afropsila) dimorpha Verbeke, 1956: 487.

Material. 1 ♂, 3 ♀♀, Kenya, 8 km NE Kericho, 9.V.1991 (♂, ♀), 16.XI.1986 (♀) (Freidberg, Kaplan), Cheyemen, 10 km E Kericho, 19. IX.1992 (Freidberg); 2 ♂♂, 2 ♀♀, Uganda, S.W. Rutenga Kabale, 7 km NE, 1950 m, 23.XII.1995, Buhoma Burindi NP, 1500 m, 31.XII.1995 (Yarom, Freidberg); 1 ♂, Tanzania, Ngorongoro Wild life Lodge, 2850 m, 3–4.IX.1992 (Freidberg); 1 ♀, Cameroon Rt. N6, Balibatibo, W Bamenda, 20.XI.1987 (Kaplan).

REDESCRIPTION. MALE. Head yellow. Ocellar triangle and narrow area around it black; vertex between *vte* with blackish area extending to occiput and ending near occipital foramen. Antenna yellow; its 3rd segment slightly conic, brown or black above arista, about 1.6–2.0 times as long as its width. Arista yellow, with very short whitish hairs. Fronto-facial angle sharply pointed. Length of frons from its anterior margin to anterior margin of eye about 1.4 times less than length of eye. Width of frons about 1.3 less than its height from anterior margin to hind ocelli. Gena about 1.3 times less than height of eye. Eye rounded, its length equal to its width. Face with narrow middle keel. Palpi yellow. Thorax yellow. Mesonotum with broad to narrow middle black stripe extending to level of *npl* and a similar pair of lateral stripes, extending from level of posterior margin humeri to *dc*; lateral stripes subdivided by suture into short presutural and more longer postsutural sections. Mesopleuron narrowly brownish on upper margin from humeral callus to base of wing; sternopleuron with brown spot in lower part; pteropleuron in upper part posteriorly with slight brownish spot; metanotum brown. Legs yellow. Middle tibia with yellow spur. Wing transparent. Section of M_{1+2} between *r-m* and *dm-cu* about 2.7 times more than previous one and equal to ultimate one. Halteres yellowish. Abdomen yellowish brown; posterior third to half of tergites II–V yellow. Genitalia — Fig. 9–10.

Chaetotaxy. 2 *vt*, *pvt* absent, 1 *npl*, 1 *sa*, *pa* absent, 1 *dc*, scutellum with 2 marginal bristles, pteropleuron bare. All bristles brown.

Body length 3.3–3.7 mm; wing length 3.0–3.3 mm.

FEMALE with blackish halteres. Body length 4.0–4.2 mm; wing length 3.8–3.9 mm.

Psila (Chamaepsila) aethiopicana Verbeke, 1952

Psila (Chamaepsila) aethiopicana Verbeke, 1952: 9.

Material. 1 ♂, Kenya, 25 km NE Kericho, 19–20.XI.1989 (Freidberg, Kaplan), 1 ♀, Kenya, 14 mi NE Nakuru, 16.XII.1969 (Irwin, Ross); 3 ♀♀, Uganda, S.W. Rutenga, 20 km NE Kabale, 1200 m, 25.XII.1995 (Yarom, Freidberg)

REDESCRIPTION. MALE. Head yellow. Ocellar triangle black. Antenna yellow; its 3rd segment black, about 1.6 times as long as its width. Arista brownish, with short hairs: width of its feathering equal to or less than thickness of basal part of arista. Width of frons equal to its height from anterior margin to hind ocelli. Gena about 1.4 times less than height of eye. Eye rounded, its length equal to its width. Face with narrow middle keel. Palpi black in apical half. Thorax yellow. Mesonotum with washed brownish middle stripe and a pair of similar postsutural stripes on each side. Mesopleuron with a similar narrow stripe on upper margin; pteropleuron, laterotergite and metanotum slightly brownish. Legs yellow, middle

tibia with yellow spur. Wing transparent. Section of M_{1+2} between *r-m* and *dm-cu* about 2.7 times more than previous one and equal to ultimate one. Halteres whitish with yellow stalk. Abdomen entirely black.

Chaetotaxy. 3 *vt*, *pvt* present, 2 *or*, 1 *npl*, 1 *sa*, 1 *pa*, 2 *dc*, scutellum with 2 marginal bristles; pteropleuron bare. All bristles yellow.

Body length 2.9–3.3 mm; wing length 2.9–3.2 mm.

DIAGNOSIS. The species may be easily distinguished from other *Chamaepsila* by its peculiar body coloration.

Psila (Chamaepsila) freidbergi Shatalkin sp.n.
Figs 11–12.

MATERIAL. Holotype: ♂, Ethiopia, Bale, Bale Mountains 10 km Gowa, 3200 m, 31.I.2000 (Freidberg, Yarom). Paratypes: ♂, ♀, same locality as holotype, 01.II.2000 (Freidberg, Yarom).

DESCRIPTION. MALE. Head yellow. Ocellar triangle black; vertex around *pvt* slightly brownish; upper occiput with a black stripe not extending outside level of frontal margin of eyes. Basal antennal segments dark brown; 3rd segment black, about 1.4 times as long as its width. Arista brownish, in very short hairs: width of its feathering less than its thickened basal part. Width of frons slightly more than its height. Gena about 1.5 times less than height of eye. Height of eye about 1.3 times as long as its length. Palpi black in apical half. Thorax black. Legs yellowish. Middle tibia with yellow spur. Wing transparent with brownish veins. CuA_2 forms an acute angle with respect to M_{3+4} . Section of M_{1+2} between *r-m* and *dm-cu* about 2.8 times more than previous one and equal to ultimate one. Halteres yellowish white. Abdomen black. Genitalia — Figs. 9–12.

Chaetotaxy. 3 *vt*, *pvt* present, 2 *or*; 1 *npl*, 1 *sa*, 1 *pa*, 2 *dc*, scutellum with 2 marginal bristles; pteropleuron bare. All bristles black.

Body length 3.4 mm; wing length 3.8 mm.

FEMALE is similar to male. Body length 2.9 mm; wing length 3.5 mm.

DIAGNOSIS. In general appearance this species is most like *P. nigricornis* Mg., 1826. The latter differs in having basal antennal segments yellow, arista light, with short but distinct hairs. Genitalia of *P. freidbergi* sp.n. is quite different (Figs. 11–12).

This species is named to honor the known dipterist Dr. Amnon Freidberg from Tel Aviv University.

Psila (Chamaepsila) (?) nigricornis Meigen, 1826

Psila (Chamaepsila) nigricornis Meigen, 1826: 359.

Material. 2 ♀♀, Kenya, Mt. Elgon, 3800 m, 25.XI.1986 (Freidberg).

Thorax and abdomen are black, but humeral calli and mesonotum laterally slightly brownish. Having only females I do not decide to assert unconditionally in correctness of my determination.

ACKNOWLEDGEMENTS. I wish to thank the following colleagues for much helpful advice and assistance of borrowing of material: Dr. E. de Coninck (Musée Royal de l'Afrique Centrale, Tervuren); Dr. P. Arnaud (California Academy of Science, San Francisco); Dr. D.A. Barraclough and Dr B.R. Stuckenberg (both from Natal Museum, Pietermaritzburg, South Africa); Dr. A. Freidberg (Tel Aviv University); Dr. A. Norrbom, Dr. F.Ch. Thompson (both from United States National Museum, Washington).

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