

Afrotropical species of the genus *Ethiosciapus* Bickel (Diptera: Dolichopodidae)

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E. maslovae sp. n. from Angola, *E. skuffini* sp. n. from Uganda are described. Diagnosis for two subgenera, catalogue and a key to 14 known species of *Ethiosciapus* are given.

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Introduction

The genus *Ethiosciapus* was established by Bickel (1994) for 11 species originally described within the old broad concepts of *Psilopus* Meigen, *Sciapus* Zeller and *Chrysosoma* Guérin-Meneville. He divided the included species into three groups, based on male frons and mesonotum setation. All the species of *Ethiosciapus* are known from Continental Africa south of latitude 5 centigrades North, as well as on some Atlantic Ocean (St. Helena) and Indian Ocean (Madagascar and Seychelles) islands. While processing unidentified material from the collection of the Natural History Museum (London), six species of the genus, belonging to all the *bickelian* groups, were found. In this paper diagnosis for two subgenera, descriptions of two new species and new records for known species are given. Holotypes and paratypes of the new species are conserved in the Natural History Museum (London).

Key to known species of *Ethiosciapus* Bickel

1. Males with strong vertical seta; femora usually bare; cercus usually with apical brush of long hairs; acrostichals short or absent; alula reduced (*Bickeliolus* subgen. n.) 2
- Males with group of hairs laterally on frons; femora usually with long black ventral hairs;

- cercus usually with short or long hairs, but without apical brush; 3 long acrostichal setae; alula well developed (*Ethiosciapus* s. s.) 7
2. Middle trochanter with fringe of long hairs, cercus narrowed in the middle 3
- Middle trochanter without fringe, cercus usually tapering 4
3. (S. Africa) *trochanteralis* Curran
- (Madagascar) *alluadi* Parent
4. Antenna black, cercus wide 5
- At least scape yellow-orange, cercus thin . . . 6
5. Basoventral hook of cercus subtriangular *lamellatus* Parent
- Basoventral hook of cercus club-shaped *maslovae* sp. n.
6. Scape yellow, other articles dark brown, first flagellomere triangular, with rounded apex; cercus filiform . . . *lutescens* Vanshuylbroeck
- Antenna dusky orange, first flagellomere short, egg-shaped, pointed; cercus tapering *lasiophthalmus* Lamb
7. Femora mostly black, all the coxae black, fore tibia with 3 long posteroventral bristles *dilectus* Parent
- Femora mostly yellow 8
8. Fore tibia with 3 long posteroventral bristles; all the coxae black, fore coxa yellow at apex 9
- Fore tibia at most with 2 long posteroventrals 10

9. Cercus shorter than hypopygium; hind femora with black ventral hairs slightly longer than femora diameter; halteres yellow *latipes* Parent
 — Cercus longer than hypopygium; hind femora with black ventral hairs twice as long as femora diameter; halteres black *skuffini* sp. n.
10. All the coxae black 11
 — Fore coxa yellow, with small black basal spot on the outer side 12
11. Femora entirely yellow; cercus with ventral fringe of short hairs, with 3 long apical bristles, with long dorsal bristle and with a group of comparatively long dorsal hairs in apical fourth *bilobatus* Lamb
 — Fore femora black ventrally in basal half, hind femora black on apex; cercus with setae gradually increasing towards apex, without distinct groups of hairs *exarmatus* Parent
12. Hind tibia at apex, hind femora and basitarsomere entirely black-brown; cercus with short hairs in basal half and with long bristles in apical half *bicalcaratus* Parent
 — Hind femora and tibia yellow, hind tarsus deep brown from the tip of basitarsomere; cercus with at least two long bristles in basal half *flaviviridis* Loew, *integer* Becker *

Subgenus *Bickeliolus* subgen. n.

Type species *Ethiosciapus (Bickeliolus) maslovae* sp. n., here designated.

Diagnosis. Male and female with strong vertical seta on frons; pedicel usually with short dorsal and ventral setae, less than twice as long as first flagellomere. Male dorsocentrals present as 3 strong posterior and 1 short but strong anterior bristles; acrostichals very short or absent. Male femorae usually bare or with short white ventral hairs; fore tibia without long setae. Alula reduced; anal angle right; squamae with pale ciliae. Male abdominal sternum with white hairs, without black thorns or long bristles; cercus usually tapering, with apical brush of long hairs; basoventral process of cercus usually as subtriangular sclerite on thin stem.

Included species

(for references see Bickel, 1994):

- alluaudi* Parent, 1935: 80 (*Chrysosoma*) — Madagascar.
lamellatus Parent, 1935: 118 (*Sciapus*) — Zaire, Ruwanda, Tanzania, St. Helena.

- lasiophthalmus* Lamb, 1922: 371 (*Psilopus*) — Seychelles.
lutescens Vanschuytbroeck, 1952: 139 (*Sciapus*) — Madagascar.
maslovae sp. n. — Angola.
trochanteralis Curran, 1924: 219 (*Sciapus*) — South Africa.

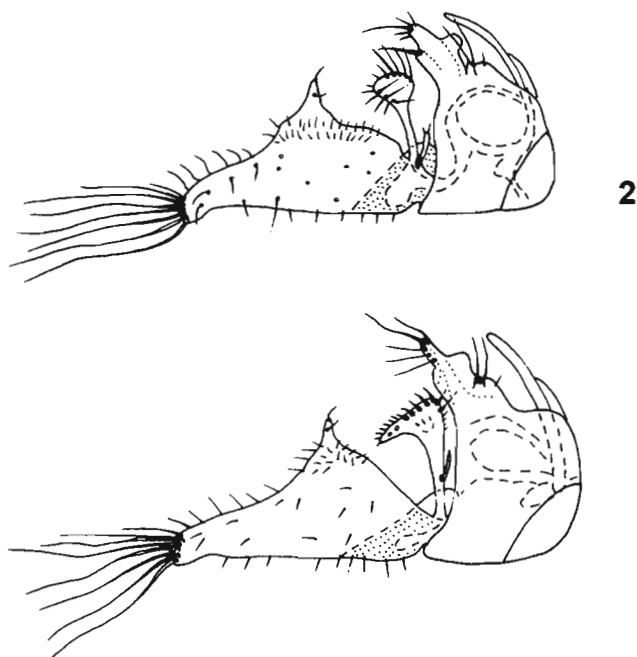
Ethiosciapus (Bickeliolus) maslovae sp. n. (Fig. 1)

Holotype. Male. **Angola:** Bruco, 26.II—2.III.1972/ Southern African Exp. B. M. 1972—1.

Paratypes. 5 males and 2 females, the same labels.

Description. Frons broad, shining metallic green. A strong front vertical bristle bends forward, postvertical one is positioned as a linear continuation of the postocular setal row. Ventral postcranium covered with dense irregular white hairs. Face violet-green, epistome shining blue, clypeus white pollinose, separated from eyes; face slightly narrowed, 1.3 times as high as wide under antennae. Palpi and proboscis orange, palpi with light hairs and 2 black bristles on both sides. Antennae black, as long as height of head. Pedicel with short but strong dorsal and ventral bristles. First flagellomere rounded, as long as its height, with short hairs. Arista dorsal, microscopically haired. Length ratio of scape to pedicel to first flagellomere to arista — 4 : 4 : 6 : 60. Mesonotum and scutellum brilliantly shining blue-green. Pleura bronze-green, weakly grey pollinose. 3 strong and 1 short anterior dorsocentral bristles; short acrostichals, restricted to anterior third of mesonotum. Scutellum with two strong bristles. Legs including trochanters light-yellow. Middle and hind coxae bronze-black, apical segments of tarsi brown. Fore coxae from the front with numerous white hairs and a few long yellow setae. Middle and hind coxae from the outside with a few yellow hairs and bristles. Fore and middle femorae with pale ventral hairs in basal half, which as long as femora diameter, hind femora bare. Fifth tarsomere of all tarsi flattened. Fore tibia bare. Fore basitarsomere ventrally flattened, with dense pale pile. Length ratio of fore coxa to femora to tibia to tarsus (segments from first to fifth) — 4.0 : 7.5 : 6.5 : 5.3 : 2.2 : 1.4 : 0.8 : 0.9. Middle tibia with 1 anterior, 1 antero-dorsal hairs and 2 or 3 apical bristles, other setae weak. Length ratio of middle coxa to femora to tibia to tarsus (segments from first to fifth) — 2.7 : 7.3 : 9.9 : 7.4 : 2.7 : 1.9 : 1.1 : 0.9. Hind tibia usually with weak setae. Length ratio of hind coxa to femora to tibia to tarsus (segments from first to fifth) — 2.0 : 9.3 : 13.5 : 5.9 : 3.0 : 1.9 : 1.2 : 0.9. Wings hyaline, veins brown. R_{4+5} gently curved to M_1 in

*Parent (1929) noted that the two species "sans doute synonymes".



Figs 1, 2. Hypopygium, lateral view.
1, *E. maslovae* sp. n.; 2, *E. lamellatus* Parent.

apical fifth. M_{1+2} and M_1 form the right angle. Ratio of parts of costa between R_{2+3} and R_{4+5} to those between R_{4+5} and M_1 — 16 : 4. M_2 present as short stub vein and faint fold on membrane. Crossvein $m-cu$ straight. Ratio of crossvein $m-cu$ to apical part of M_{1+2} (fork-handle) to apical part of CuA — 26 : 36 : 14. Anal vein and lobe present. Anal angle right. Squamae yellow, with brown edging and pale hairs. Halteres yellow, halter stem as long as knob. Abdomen shining blue-green, with short and a few long black bristles. Apical border of last segments black-violet; first tergum with narrow membranous excavation and short white lateral hairs; sternum with white hairs only. 1st—6th segments together nearly twice as long as mesonotum. Hypopygium black-brown. Cercus yellow, broad and tapering, with apical brush of long yellow hairs. Basoventral sclerotised hook of cercus club-shaped.

Female. Similar to male except lacking male secondary sexual characters, otherwise as follows: fore coxa, fore and middle femorae with short hairs, fore coxa with 4 yellow strong bristles in apical half. Fore tibia with one anterodorsal, middle tibia with one anterodorsal and one anterior, hind tibia with one anterodorsal and one anterior bristles. Ratio of first to second tarsomere of fore, middle and hind tarsi — 4.5 : 1.7; 5.9 : 2.1; 5.3 : 2.5.

Length: male body 3.4—3.6 mm; antenna 1.1 mm; female body 2.9—3.2 mm; wing-length 3.4 mm; wing-width 1.1 mm.

Distribution. Angola.

Erymology. The species is named for Russian dipterologist Dr. Olga Maslova.

Diagnosis. *E. maslovae* is an allied species for *E. lamellatus*. Males of the new species differ by thicker hairs on fore coxa, longer hairs on fore and middle femorae, and by the club-shaped cercal hook. Both species similar to *E. trochanteralis*, which is separated by fringe of long hairs on middle trochanter and hypopygium morphology. I could not find any difference between females of all those species.

Ethiosciapus (Bickeliolus) lamellatus (Parent) (Fig. 2)

Material examined. 3 males and 2 females, **Uganda**: Ruwenzori Range, XII.1934—I.1935. B. M. E. Afr. Exp. B. M. 1935—203 / Kilembe, 4500 ft., F. W. Edwards.

Diagnosis. *E. lamellatus* is closely related to *E. maslovae* sp. n. Male with strong vertical seta and with 4 strong dorsocentral bristles, the anteriormost short; acrostichals very short. Antenna black. Legs including trochanters yellow, fore and middle femorae with short white ventral hairs, fore basitarsomere ventrally flattened. Cercus tapering, with apical brush of long hairs and subtriangular basoventral sclerotised process.

Distribution. Zaire, Ruwanda, Tanzania, St. Helena, Uganda (!).

Ethiosciapus (Bickeliolus) trochanteralis
(Curran)

Material examined. Male. Natal: Weenen, III.1925, H. P. Thomasset / Pres. by Imp. Inst. Ent. Brit. Mus. 1932—338. Female. Natal: Weenen, 2840 ft., III.1924, H. P. Thomasset / Pres. by Imp. Inst. Ent. Brit. Mus. 1933—14.

Diagnosis. Male with strong vertical seta; acrostichals very short. Antenna black. Legs including trochanters yellow, middle trochanter with a fringe of long yellow ventral hairs, middle femora with a few fine yellow ventral hairs at base, fore basitarsomere ventrally flattened. Cercus narrowed in the middle, with apical brush of long setae and subtriangular basoventral sclerotised process on thin stem. *E. trochanteralis* is very close to *E. alluaudi* and the two species are possible synonyms (Bickel, 1994).

Distribution. South Africa.

Subgenus *Ethiosciapus* Bickel, 1994 (as genus)

Type species *Psilopus bilobatus* Lamb, 1922, original designation.

Diagnosis. Male with a group of long hairs, arising laterally on frons; female with strong vertical seta; pedicel usually with long dorsal and ventral setae, more than twice as long as first flagellomere. Male dorsocentrals present as 2 strong posterior bristles and 3 short weak anterior hairs; 3 long pairs of acrostichal setae. Male femorae and fore tibia with long black ventral setae. Alula well developed; anal angle sharp; squamae usually with dark ciliae. Male with a pair of black thorns or groups of long black bristles on third and sometimes on second abdominal sternums; cercus usually without tapering, with ventral pile of dense hairs and a row of lateral bristles; basoventral process of cercus usually broadened basally, with thin, long, pointed ventral hook.

Included species

(for references see Bickel, 1994):

bicalcaratus Parent, 1933: 37 (*Sciapus*) — Zaire, Uganda (!).

bilobatus Lamb, 1922: 372 (*Psilopus*) — Seychelles.

dilectus Parent, 1935: 84 (*Sciapus*) — Tanzania, Uganda (!).

exarmatus Parent, 1933: 39 (*Sclapus*) — Zaire.

flaviostris Loew, 1858: 371 (*Psilopus*) — South Africa, Mozambique, Ethiopia.

integer Becker, 1923: 47 (*Sciapus*) — Malawi, **n. comb.**

latipes Parent, 1930: 94 (*Chrysosoma*) — Madagascar.

skuffini sp. n. — Uganda

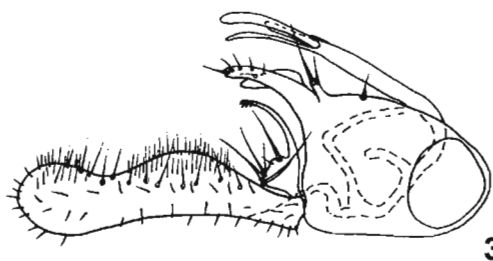


Fig. 3. *E. skuffini* sp. n., hypopygium, lateral view.

Ethiosciapus (Ethiosciapus) skuffini sp. n.
(Fig. 3)

Holotype. Male. Uganda: Ruwenzori Range, XII. 1934—I.1935. B.M. E. Afr. Exp. B.M. 1935—203 / Kilembe, 4500 ft., F. W. Edwards.

Paratype. Male with the same labels.

Description. Frons broad, shining metallic green. A group of long front vertical hairs present, arising laterally on frons, postvertical bristle is positioned as a linear continuation of the increasing postocular setal row. Ventral postcranium covered with dense irregular white hairs. Face metallic green, slightly white pollinose, clypeus separated from eyes; face slightly narrowed, 1.3 times as high as wide under antennae. Palpi and proboscis orange, palpi with light hairs and 2 black bristles on both sides. Antennae black, longer than height of head. Pedicel with strong dorsal and ventral bristles, the longest 1.5 times as long as three articles together. First flagellomere rounded, shorter than its height, with short hairs. Arista dorsal, microscopically haired. Length ratio of scape to pedicel to first flagellomere to arista — 6 : 5 : 6 : 85. Mesonotum and scutellum brilliantly shining blue-green. Pleura bronze-green, weakly grey pollinose. 2 strong posterior and a few hairlike anterior dorsocentral setae; 3 long acrostichals. Scutellum with two strong bristles. Legs mostly yellow. Fore coxa except apex, middle and hind coxae bronze-black; middle and hind trochanters, hind femora ventrally in basal third and dorsally on apex, and tarsi except base of first tarsomere, brown. Fore coxae from the front with numerous white hairs and a few long yellow setae. Middle coxa from the front with dense white hairs, hind coxa from the outside with a few white hairs. Fore and middle femorae with one row, middle femora with two rows of long black ventral setae, which at least twice as long as femora diameter. Fifth tarsomere of all tarsi flattened. Fore tibia with two short dorsal and 3 long posteroventral setae. Fore basitarsomere ventrally flattened, with dense pale pile. Length ratio of fore coxa to femora to tibia to tarsus (segments from first

to fifth) — 4.8 : 9.0 : 9.4 : 6.0 : 2.2 : 1.5 : 0.8 : 0.9. Middle tibia with 2 or 3 anterodorsal, 2 posterodorsal, 2 or 3 ventral and 3 or 4 apical bristles. Length ratio of middle coxa to femora to tibia to tarsus (segments from first to fifth) — 4.0 : 9.6 : 12.2 : 8.8 : 2.9 : 2.1 : 1.1 : 0.8. Hind tibia with 2 or 3 anterior, 2 or 3 dorsal, 3 or 4 apical, a few weak posterior and ventral setae. Length ratio of hind coxa to femora to tibia to tarsus (segments from first to fifth) — 2.3 : 11.7 : 18.0 : 7.8 : 3.3 : 2.3 : 1.3 : 1.0. Wings hyaline, veins brown. R_{4+5} gently curved to M_1 in apical fifth. M_{1+2} and M_1 form the right angle. Ratio of parts of costa between R_{2+3} and R_{4+5} to those between R_{4+5} and M_1 — 23 : 5. M_2 present as very short stub vein and faint fold on membrane. Crossvein *m-cu* straight. Ratio of crossvein *m-cu* to apical part of M_{1+2} (fork-handle) to apical part of *CuA* — 38 : 47 : 29. Alula well developed; anal vein and lobe present; anal angle sharp. Squamae brown, with dark hairs. Halteres black, halter stem as long as knob. Abdomen shining green, with short and long black bristles. Both borders of last segments mat-black; first tergum with narrow membranous excavation and white lateral hairs; second sternum with long white hairs and a few long black setae; third sternum with 2 groups of long black setae. 1st—6th segments together nearly twice as long as mesonotum. Hypopygium black-brown. Cercus yellow, with brown rounded apex, with pale ventral hairs and black lateral bristles. Basoventral sclerotised hook of cercus basally broad, with black bristles and long bare pointed ventral process.

Female unknown.

Length: male body 4.2—4.5 mm; antenna 1.4 mm; postabdomen 1.6 mm; wing-length 4.7 mm; wing-width 1.5 mm.

Distribution. Uganda.

Etymology. The species is named in honour of the Russian dipterologist Prof. K. V. Skufjin.

Diagnosis. *E. skufjini* is close to *E. latipes*, differing by longer ventral setae on all femorae, black halteres, other colour characters, and by hypopygium morphology.

Ethiosciapus (Ethiosciapus) bicalcaratus Parent

Material examined. 7 males and 1 female, Uganda: Ruwenzori Range, XII.1934—I.1935. B.M. E. Afr. Exp. B.M. 1935—203 / Namwamba Valley, 6500 ft., F. W. Edwards.

Diagnosis. Male with a group of hairs laterally on frons, 2 strong posterior and hairlike anterior dorso-central setae; 3 long acrostichals. Fore coxa yellow except base, other coxae black; femorae yellow, with long black ventral hairs, fore tibia with 2 long posteroventral bristles; fore basitarsomere ventrally flattened. Squamae with light ciliae. Third sternum with 2 strong black setae. Cercus yellow, with brown border on apex, pale ventral hairs and black lateral and apical hairs, with thin basoventral hook.

Distribution. Zaire, Uganda (!).

Ethiosciapus (Ethiosciapus) dilectus Parent

Material examined. Male, Uganda: Ruwenzori Range, XII.1934—I.1935. B.M. E. Afr. Exp. B.M. 1935—203 / Kilembe, 4500 ft., F. W. Edwards.

Diagnosis. Male with a group of hairs laterally on frons, 2 strong posterior and hairlike anterior dorso-central setae; 3 long acrostichals. All the coxae black; femorae black except apex, with long black ventral hairs, fore tibia with 3 long posteroventral bristles; fore basitarsomere ventrally flattened. Squamae with black ciliae. Third sternum with long black bristles; first tergum and sternum with long white hairs. Cercus yellow, strap-like, slightly broadened towards apex, with dense pale ventral hairs, a row of black lateral bristles, and sclerotised pointed basoventral hook.

Distribution. Tanzania, Uganda (!).

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