

Revision of the Afrotropical species of the *Philonthus marginipennis* species group (Coleoptera: Staphylinidae: Philonthina)

Lubomír HROMÁDKA

Anny Letenské 7, CZ–120 00 Praha 2, Czech Republic; hromadka@seznam.cz

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Abstract. The *Philonthus marginipennis* species group of the genus *Philonthus* Stephens, 1829 containing seven species is proposed. One species is described as new: *Philonthus estrilda* sp. nov. (Democratic Republic of the Congo) and the other six species are redescribed: *P. bangoranus* Levasseur, 1980, *P. capeneri* Last, 1953, *P. gilleti* Levasseur, 1980, *P. marginipennis* Wollaston, 1867, *P. sepilibilis* Tottenham, 1949 and *P. upuzius* Tottenham, 1962. A key to all the species of the *P. marginipennis* species group is presented and the aedeagi and relevant morphological characters of all species are figured.

Taxonomy, redescription, new species, key, Coleoptera, Staphylinidae, Staphylininae, Philonthina, *Philonthus marginipennis* species group, Distribution, Afrotropical region.

INTRODUCTION

The genus *Philonthus* Stephens, 1829 is represented in the Afrotropical Region by approximately 300 species divided into six species groups by Tottenham (1962) and four species groups by Hromádka (2008a, b, c, 2009c). The present study adds to these previous studies by providing a revision of the species belonging to the *P. marginipennis* species group. Members of this group are predators and live in the woody savanna, mostly in dung of mammals where they hunt various tiny insects and their larvae. Currently there are six species in this species group, all of which occur in the Afrotropical Region (Fig. 20), with only one species, *P. marginipennis* Wollaston, 1867, also in the Palaearctic Region (Saudi Arabia). One new species *P. estrilda* from the Democratic Republic of the Congo is described in this paper. The *Philonthus marginipennis* species group is characterized by the following characters: body mostly black or black brown, dorsal rows on pronotum each with four or five punctures, sublateral rows on pronotum each with two punctures. Aedeagus with parameres that terminally are very broad but then narrow to points, at their widest the parameres completely conceal the median lobe, median lobe not extending much beyond parameres, its apex bluntly pointed and mostly slightly curved downwards.

The following seven Afrotropical species are included in this group:

Philonthus bangoranus Levasseur, 1980: Central African Republic;

Philonthus capeneri Last, 1953: Uganda, South Africa, Natal;

Philonthus estrilda sp. nov.: Democratic Republic of the Congo;

Philonthus gilleti Levasseur, 1980: Chad, Democratic Republic of the Congo;

Philonthus marginipennis Wollaston, 1867: Cape Verde Islands, Benin, Namibia, Saudi Arabia, Senegal, Sudan;

Philonthus sepilibilis Tottenham, 1949: Democratic Republic of the Congo;

Philonthus upuzius Tottenham, 1962: Zambia.

MATERIAL AND METHODS

The following acronyms are used to refer to the collections mentioned:

BMNH – The Natural History Museum, London, United Kingdom (Max Barclay, Roger Booth and Martin Brendell);

LHPC – Lubomír Hromádka collection, Praha, Czech Republic;

MNHN – Muséum national d'Histoire naturelle, Paris, France, (Thierry Deuve, Taghavian Azedah);

MRAT – Musée Royal de l'Afrique centrale, Tervuren, Belgium (Marc de Meyer);

NMPC – National Museum, Praha, Czech Republic (Jiří Hájek);

NMUK – Manchester Museum, Manchester, United Kingdom (Dmitri Logunov).

The following abbreviations are used in the description: L = left dorsal row on pronotum, R = right dorsal row on pronotum. A double slash (//) is used to divide information from separate labels on the type specimen. All measurements were made on beetles with extended abdomens. All ratios mentioned in the descriptions are dimensionless but can be converted to lengths in mm: 20 units = 1 mm.

RESULTS

Philonthus bangoranus Levasseur, 1980

(Figs 1–3)

Philonthus bangoranus Levasseur, 1980: 360.

TYPE MATERIAL. **Holotype** (♂): 'REPUBLICA OF CENTRAL AFRICA, Bangoran, SW de Ndélé, i. 1968 // *Philonthus bangoranus* Levasseur, Holotype, [white oblong label handwritten], Savane boisée, crotte buffle, R. Cailleux leg., collection Levasseur' (MNHN).

TYPE LOCALITY. Central African Republic, Bangoran, SW de Ndélé.

REDESCRIPTION. Body length 6.2 mm, length of fore body (to end of elytra) 2.7 mm. Head black, pronotum and abdomen black-brown, posterior margin of all tergites slightly brown-red, elytra brown, posterior fourth including epipleura testaceous, maxillary and labial palpi brown, mandibles brown-yellow, antennae black-brown, base of antennomere 2 yellow-brown, legs brown-yellow, tibiae infusate, abdomen slightly iridescent blue.

Head square, somewhat wider than long (ratio 19.5:17), parallel-sided, posterior angles obtusely rounded bearing two long black bristles. Between eyes 4 punctures, distance between medial punctures about 5 times that between medial and lateral punctures, medial punctures slightly shifted posteriorly. Eyes as large as temples. temporal area with scattered punctures, surface with very fine microsculpture.

Antennae at rest reach posterior third of pronotum, antennomeres 1–5 and 11 slightly longer than wide, antennomeres 6–10 as long as wide. Relative length of antennomeres: 1 = 6.5; 2 = 4; 3 = 3; 4–7 = 2.5; 8–10 = 2; 11 = 3.5.

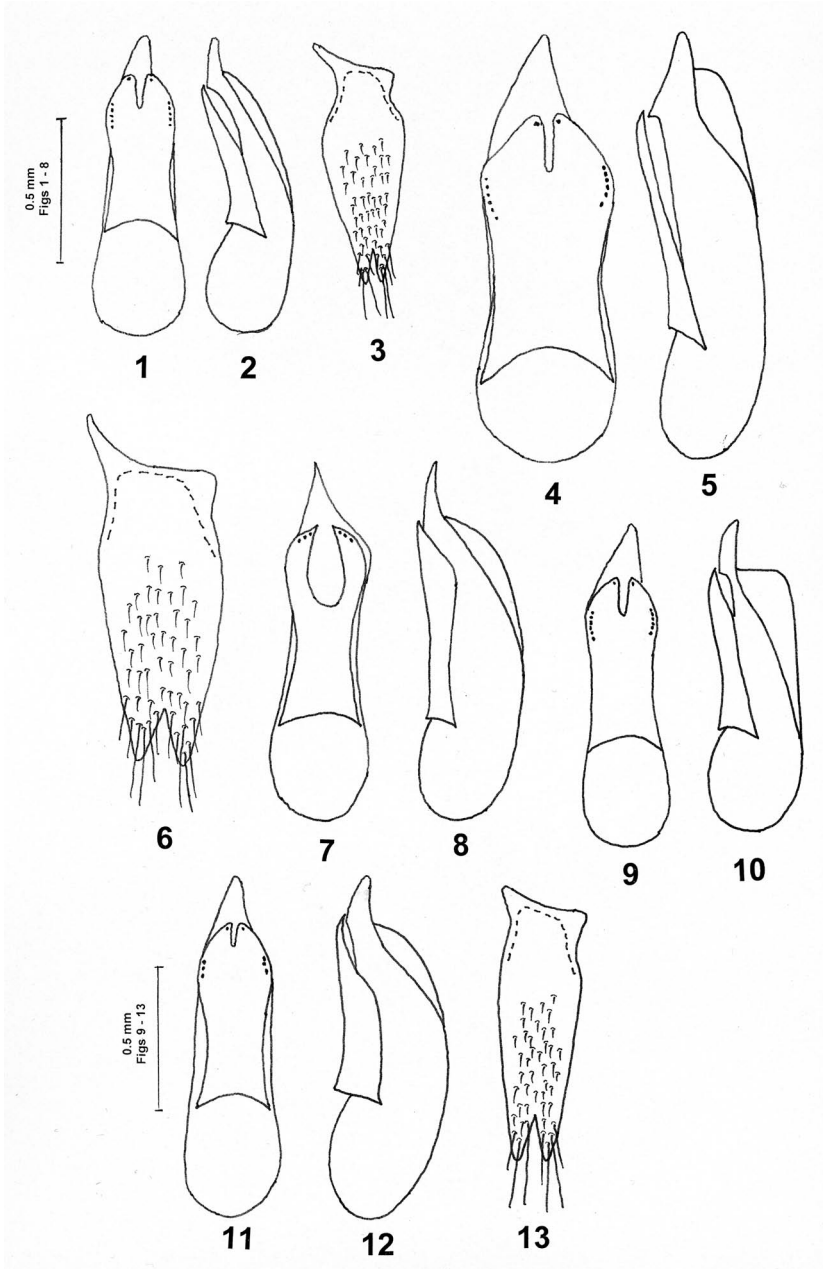
Pronotum hardly longer than wide (ratio 24:23), narrows towards anterior margin in straight line, left dorsal row with 4 coarse punctures, right row with 5 punctures, each sublateral row with two punctures, anterior angles bearing several short bristles, microsculpture similar to that on head.

Scutellum finely and sparsely punctate, punctures smaller than eye-facets, separated by a distance slightly greater than the transverse diameter of one puncture.

Elytra nearly square (ratio 32:33), distinctly wider posteriorly, punctures coarser than on scutellum, distance between punctures greater than transverse diameter of one puncture, surface lacks microsculpture; setation grey.

Legs. Metatibia slightly longer than metatarsus (ratio 18:16). Relative length of metatarsomeres: 1 = 5; 2 = 2; 3–4 = 1.5; 5 = 4.

Abdomen wide. from visible tergite III narrows anteriorly and posteriorly. First three visible tergites with two basal lines, elevated area between lines punctate. Punctuation at base of all tergites finer and denser than that on elytra, gradually becoming finer and sparser towards posterior



Figs 1–13. 1–3. *Philonthus bangoranus* Levasseur, 1980. 1 – aedeagus, ventral view, 2 – aedeagus, lateral view, 3 – male sternite IX, ventral view. 4–6. *P. capaneri* Last, 1953. 4 – aedeagus, ventral view, 5 – aedeagus, lateral view, 6 – male sternite IX, ventral view. 7–8. *P. estrilda* sp. n. 7 – aedeagus, ventral view, 8 – aedeagus, lateral view. 9–10. *P. gilleti* Levasseur, 1980. 9 – aedeagus, ventral view, 10 – aedeagus, lateral view. 11–13. *P. marginipennis* Wollaston, 1867. 11 – aedeagus, ventral view, 12 – aedeagus, lateral view, 13 – male sternite IX, ventral view.

margin of each tergite, surface between punctures lacks microsculpture; setation similar to that on elytra.

Male. Protarsomeres 1–3 simple, not strongly dilated, protarsomere 4 very narrow. Sternite IX (Fig. 3), aedeagus (Figs 1–2)

Female. Unknown.

DIFFERENTIAL DIAGNOSIS. *P. bangoranus* is very similar to *P. upuzius*, from which it may be distinguished by its smaller eyes, narrower elytra, from *P. gilleti* by its smaller eyes, paler colour of elytra and from both by the shape of its aedeagus.

DISTRIBUTION. Central African Republic (Herman 2001).

Philonthus capeneri Last, 1953

(Figs 4–6)

Philonthus capeneri Last, 1953: 362.

TYPE MATERIAL. **Holotype** (♂): 'Natal: Mtunzini, 7.ix.1949, HL. F. 3008. 6140. // *Philonthus capeneri* sp. n. TYPE ♂, H. Last, det. [white oblong label handwritten]' (NMUK). **Paratype** (♀): Mtunzini, 1.ix.1949 // *Philonthus capeneri* sp. n. Paratype H. Last det. (NMUK).

ADDITIONAL MATERIAL STUDIED. 2 spec., Indauni, Natal, 10.ii.1968 (NMUK).

TYPE LOCALITY. Natal, Mtunzini.

REDESCRIPTION. Body length 8.9 mm, length of fore body (to end of elytra) 3.5 mm. Head, pronotum, scutellum and abdomen black, elytra brown-red, shoulders wide black. Maxillary, labial palpi and mandibles dark brown, whole of antennomere 1 and base of antennomere 2 brown-yellow, remaining antennomeres black. Femora brown-yellow, tibiae and tarsi slightly darker.

Head almost square, parallel-sided, posterior angles markedly rounded, bearing two long, black bristles. Eyes flat, slightly larger than temples (ratio 7:6). Posterior angles with 2 coarse punctures. Between eyes 4 coarse punctures, distance between medial punctures three times that between medial and lateral punctures. Medial punctures distinctly shifted anteriorly. Surface with very fine transverse wavy microsculpture.

Antennae short and stout, slightly wider distally, at rest reach middle of pronotum, antennomeres 1–5 and 11 longer than wide, antennomeres 6–8 as long as wide, antennomeres 9–10 wider than long. Relative length of antennomeres: 1 = 8; 2–3 = 3.5; 4–8 = 2.5; 9–10 = 2; 11 = 3.5.

Pronotum very convex, longer than wide (ratio 40:38), narrower anteriorly, posterior angles markedly rounded. Each dorsal row with 4 equidistant punctures, each sublateral row with 2 punctures, arranged in a row parallel to the dorsal row, puncture 1 situated behind puncture 2 in the dorsal row, puncture 2 situated behind puncture 3 in the dorsal row. Surface with very fine transverse wavy microsculpture.

Scutellum very densely and coarsely punctate, diameter of punctures as large as eye-facets, separated by the transverse diameter of one puncture; setation dark.

Elytra almost square, slightly wider than long (ratio 36:32), slightly wider posteriorly. Anterior angles bearing 1 long black bristle. Punctuation coarse and relatively sparse, diameter of punctures larger than eye-facets, separated by 1.5 or 2 puncture diameters. Surface lacks microsculpture; setation long and greyish.

Legs. Metatibia longer than metatarsus (ratio 36:32), relative length of metatarsomeres: 1 = 5; 2 = 3; 3 = 2.5; 4 = 2; 5 = 5.

Abdomen wide, slightly narrows from visible tergite III anteriorly and posteriorly. First three visible tergites with two basal lines, elevated area between lines impunctate. Punctuation at base of all tergites denser than that on elytra, gradually becoming finer and sparser towards posterior

margin on all tergites. Surface between punctures lacks microsculpture; setation similar to that on elytra.

Male. Protarsomeres 1–3 relatively slightly dilated and sub-bilobed, each covered ventrally with modified pale setae, protarsomere 4 narrower than preceding ones. Sternite IX (Fig. 6). aedeagus (Figs 4–5).

DIFFERENTIAL DIAGNOSIS. *Philonthus capaneri* is similar to *P. marginipennis* but is larger, with slightly shorter antennae, darker coloured elytra and has a different shaped aedeagus

DISTRIBUTION. Uganda, Republic of South Africa, Natal (Herman 2001).

***Philonthus estrilda* sp. nov.**

(Figs 7–8)

TYPE MATERIAL. **Holotype** (♂): 'Democratic Republic of the Congo, Lulua: Katanga, iv.1933, F. G. Overlaet // *Philonthus estrilda* sp. n. Hromádka det., 2010 [red oblong printed label]' (NMPC).

TYPE LOCALITY. Democratic Republic of the Congo, Lulua, Kapanga.

DESCRIPTION. Body length 7.3 mm, length of fore body (to end of elytra) 3.7 mm. Head black, pronotum, scutellum, elytra and abdomen black-brown, maxillary and labial palpi and mandibles yellow-brown, antennomere 1 and base of antennomere 2 brown yellow, remaining antennomeres brown. Femora yellow-brown, tibiae darker, tarsi brown, slightly paler distally.

Head wider than long (ratio 26:21), very slightly narrower anteriorly, posterior angles markedly rounded, bearing one long black bristle. Clypeus with rounded shallow depression and with 1 short line medially. Between eyes 4 coarse punctures arranged in a straight line, distance between medial punctures 5 times that between medial and lateral punctures. Eyes flat, as large as temples, posterior margin with 2 punctures, temporal area impunctate. Surface with very fine transverse wavy microsculpture.

Antennae short, at rest reach posterior third of pronotum. Relative length of antennomeres: 1 = 8; 2 = 5; 3 = 4; 4–6 = 3; 7–10 = 2.5; 11 = 3.

Pronotum very convex, parallel-sided, slightly longer than wide (ratio 30:28), anterior angles conspicuously deflexed, markedly rounded, bearing several short dark bristles, posterior angles markedly rounded. Each dorsal row with 5 coarse punctures, punctures 2–4 equidistant, distance between punctures 1–2 and 4–5 slightly greater, each sublateral row with 2 punctures arranged in a row parallel to the dorsal row and half way between it and side. Surface with microsculpture similar to that on head.

Scutellum very densely and finely punctate, punctures as large as eye-facets, separated by one or slightly more than the diameter of one puncture.

Elytra wider than long (ratio 38:32), slightly wider posteriorly. Punctuation slightly coarser than that on scutellum, punctures larger than eye-facets, separated by one or occasionally more than one puncture diameter. Surface between punctures lacks microsculpture; setation relatively dense and brown-greyish.

Legs. Metatibia as long as metatarsus, relative length of metatarsomeres: 1 = 5; 2 = 3; 3 = 2.5; 4 = 2; 5 = 5.

Abdomen wide, from visible tergite III slightly narrows anteriorly and posteriorly, first three visible tergites with two basal lines, elevated area between lines punctate. Punctuation at base of all tergites denser and slightly finer than on elytra, becoming sparser towards posterior margin on each tergite. Surface lacks microsculpture; setation similar to that on elytra.

Male. Protarsomeres 1–3 slightly dilated, each covered ventrally with modified pale setae, protarsomere 4 narrower than preceding ones. Aedeagus (Figs 7–8).

Female. Unknown.

DIFFERENTIAL DIAGNOSIS. *Philonthus estrilda* sp. nov. is a sister species of *P. septilibilis*, but differs in having shorter antennae, slightly sparser punctation on its elytra and in the shape of its aedeagus.

DISTRIBUTION. Democratic Republic of the Congo.

ETYMOLOGY. The name of this species, a noun in apposition, is the Latin generic name of the African Black-rumped waxbill *Estrilda troglodytes* (Lichtenstein 1823).

Philonthus gilleti Levasseur, 1980

(Figs 9–10)

Philonthus gilleti Levasseur, 1980: 361.

TYPE MATERIAL. **Paratype** (♂): 'Tchad: Parc Zakouma, Mas Dhour, 4.v.1968, crottin d'elephant, Rob Gillet // *Philonthus gilleti* Levasseur det., 1969, Paratype [white oblong label with red PARATYPE]' (MNHN).

ADDITIONAL MATERIAL STUDIED. **DR Congo** [Congo Belge], Libenge, 1 (♂), R. Cremer, M. Neuman (LHPC).

TYPE LOCALITY. Tchad, Parc Zakouma, Mas Dhour.

REDESCRIPTION. Body length 6.4 mm, length of fore body (to end of elytra) 3.2 mm. Head black, pronotum and scutellum brown, elytra brown, suture, posterior margin and whole epipleura yellow-brown, abdomen brown, posterior margin of all tergites slightly metallic iridescent yellow-brown. Maxillary and labial palpi and mandibles brown. Antennomere 1 and base of antennomere 2 brown-yellow, remaining antennomeres black-brown, femora yellow-brown, tibiae infusate, tarsi dark, paler distally.

Head rounded, slightly wider than long (ratio 21:19), posterior angles obtusely rounded, bearing two black bristles. Between eyes 4 punctures, distance between medial punctures 4 times greater than that between medial and lateral punctures. Clypeus with a short and deep line medially. Eyes larger than temples (ratio 9:7), posterior margin with one setiferous puncture, temporal area with several unequally large punctures. Surface with very fine irregular microsculpture.

Antennae long, at rest reach posterior sixth of pronotum. Relative length of antennomeres: 1 = 7; 2 = 4; 3 = 3.5; 4–10 = 3; 11 = 3.5.

Pronotum very convex, longer than wide (ratio 29:26), very slightly narrows anteriorly. Anterior angles conspicuously deflexed, markedly rounded, bearing several unequally long bristles, posterior angles markedly rounded. Each dorsal row with 5 punctures, punctures 2–4 equidistant, distance between punctures 1–2 and 4–5 slightly greater. Each sublateral row with 2 punctures arranged in a row parallel to the dorsal row and half way between it and side. Surface with microsculpture similar to that on head.

Scutellum very densely and finely punctate, diameter of punctures similar to that of eye-facets, separated by one puncture diameter or slightly less.

Elytra wider than long (ratio 35:32), slightly wider posteriorly. Punctation fine and dense, diameter of punctures slightly greater than that of the punctures on scutellum, separated by transverse diameter of one puncture. Surface lacks microsculpture; setation yellowish.

Legs. Metatibia slightly longer than metatarsus (ratio 20:18). Relative length of metatarsomeres: 1 = 5; 2–4 = 2; 5 = 4.5.

Abdomen wide, first three visible tergites with two basal lines, elevated area between lines punctate. From visible tergite III slightly narrows anteriorly, more markedly so posteriorly. Punctation on whole tergites slightly finer and denser than that on elytra. Surface lacks microsculpture; setation similar to that on elytra.

Male. Protarsomeres 1–3 moderately dilated, each covered ventrally with modified pale setae, protarsomere 4 narrow and small. Aedeagus (Figs 9–10).

Female. Unknown.

DIFFERENTIAL DIAGNOSIS. *P. gilleti* may be distinguished from the similar *P. bangoranus* by its larger eyes, darker colour of its elytra and the shape of its aedeagus.

DISTRIBUTION. Chad (Herman 2001).

***Philonthus marginipennis* Wollaston, 1867**
(Figs 11–13)

Philonthus marginipennis Wollaston 1867: 236.

TYPE MATERIAL. Not studied.

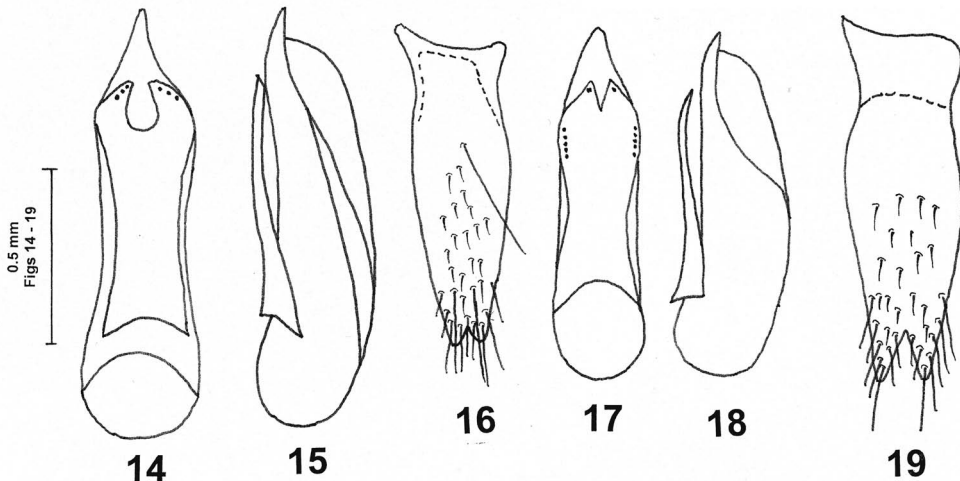
ADDITIONAL MATERIAL STUDIED. **Namibia**: 1 spec. ♂, Oshikango Ovambo land, vii.1948, Koch lgt. (LHPC).

TYPE LOCALITY. Cape Verde Islands, S. Vicente.

REDESCRIPTION. Body length 6.8 mm, length of fore body (to end of elytra) 3.1 mm. Head black, pronotum and scutellum brown, elytra brown-reddish, whole epipleura and suture reddish-brown. Maxillary, labial palpi and mandibles brown, antennomere 1, base of antennomere 2 and legs brown-yellow, remaining antennomeres black-brown.

Head rounded, wider than long (ratio 21:19), posterior angles markedly rounded, bearing one long black bristle. Between eyes 4 punctures, distance between lateral and medial punctures very small, distance between medial punctures 8 times that between medial and lateral punctures. Eyes flat, larger than temples (ratio 8:6.5), posterior margin with 2 coarse punctures, temporal area with scattered punctures. Surface with very fine transverse wavy microsculpture.

Antennae at rest almost reach posterior fourth of pronotum. Relative length of antennomeres: 1 = 6; 2 = 4; 3 = 3; 4–10 = 2; 11 = 3.



Figs 14–19. 14–16. *P. sepilibilis* Tottenham, 1949. 14 – aedeagus, ventral view, 15 – aedeagus, lateral view, 16 – male sternite IX, ventral view. 17–19. *P. upuzius* Tottenham, 1962. 17 – aedeagus, ventral view, 18 – aedeagus, lateral view, 19 – male sternite IX, ventral view.

Pronotum very convex, longer than wide (ratio 29:26), very slightly narrows anteriorly, anterior angles conspicuously deflexed, markedly rounded, bearing several short bristles, posterior angles rounded. Each dorsal row with 4 punctures, punctures 2–4 equidistant, distance between punctures 1 and 2 slightly less, each sublateral with 2 punctures, puncture 2 shifted laterally. 1 long black bristle on sides of posterior third. Surface with microsculpture similar to that on head.

Scutellum very densely and coarsely punctate, diameter of punctures larger than eye-facets, separated by one puncture diameter or slightly less.

Elytra wider than long (ratio 34:31), very slightly wider posteriorly. Punctuation coarse and sparse, punctures larger than those on scutellum, separated by 1 or 1/5 puncture diameters. Surface lacks microsculpture; setation yellow-brown.

Legs. Metatibia as long as metatarsus, relative length of metatarsomeres: 1 = 5; 2 = 3; 3 = 2.5; 4 = 2; 5 = 5.

Abdomen from visible tergite III very gradually narrows anteriorly and posteriorly. First three visible tergites with two basal lines, elevated area between lines with scattered punctures. Punctuation at base of all tergites much finer and denser than on elytra, becoming slightly sparser towards posterior margin of each tergite. Surface lacks microsculpture; setation similar to that on elytra.

Male. Protarsomeres 1–3 moderately dilated and sub-bilobed, each covered ventrally with modified pale setae, protarsomere 4 narrower than preceding ones. Sternite IX (Figs 13), aedeagus (Figs 11–12).

Female. Unknown.

DIFFERENTIAL DIAGNOSIS. *Philonthus marginipennis* may be distinguished from the similar *P. capaneri* as it is smaller, has slightly longer antennae, the paler colour of its elytra and the shape of its aedeagus.

DISTRIBUTION. Cape Verde Islands, Benin, Namibia, Saudi Arabia, Senegal, Sudan.

Philonthus sepilibilis Tottenham, 1949 (Figs 14–16)

Philonthus sepilibilis Tottenham, 1949: 339.

TYPE MATERIAL. **Holotype** ♂: 'Democratic Republic of the Congo, Mongende, 21. iv. 1921, Dr. H. Schouteden // *Philonthus sepilibilis* Tottenham TYPE [ochre oblong label handwritten]' (MRAT).

TYPE LOCALITY. Congo Region.

REDESCRIPTION. Body length 6.8 mm, length of fore body (to end of elytra), 3.4 mm. Head black, pronotum, scutellum and elytra pitchy-brown, abdomen black with slight metallic reflection, posterior margin of all tergites brown-red, palpi, mandibles and antennae dark brown, femora yellow, tibiae and tarsi dark brown.

Head almost quadrate, wider than long (ratio 24:20), parallel-sided. Clypeus with a small deep depression medially. Posterior angles almost rectangular, slightly rounded, bearing one long black bristle. Four coarse punctures between eyes, arranged in a straight line, distance between medial interocular punctures 4 times that between medial and lateral punctures. Eyes larger than temples (ratio 10:8), temporal area with several coarse punctures. Surface with very fine irregular microsculpture.

Antennae long, at rest almost reach posterior margin of pronotum. Relative length of antennomeres: 1 = 10; 2 = 4; 3 = 5; 4 = 4; 5–8 = 3.5; 9–10 = 3; 11 = 3.

Pronotum as long as wide, parallel-sided, anterior angles bearing several variably large bristles, anterior third of sides with 1 long black bristle. Each dorsal row with 5 coarse punctures, punctures 2–4 equidistant, distance between punctures 1–2 and 4–5 greater than between punctures 2–4,

each sublateral row with 2 punctures, arranged in a row parallel to the dorsal row and half way between it and the sides. Surface with microsculpture similar to that on head.

Scutellum finely and densely punctate, punctures slightly larger than eye-facets, separated by the transverse diameter of one puncture.

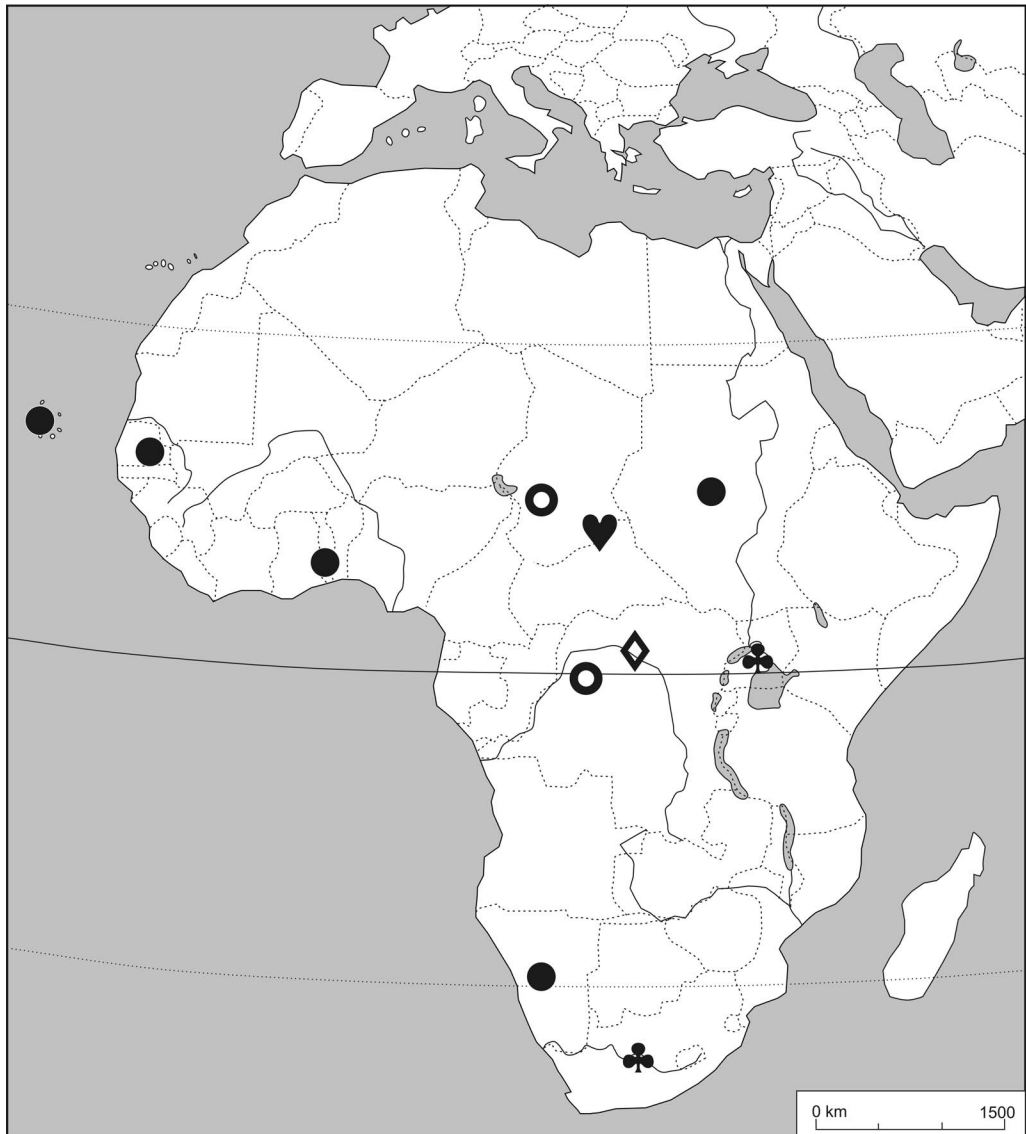


Fig. 20. Occurrence of the species of the *Philonthus marginipennis* group in the Afrotropical Region. Symbols used for the species: ♥ *P. bangoranus* Lévassieur, 1980, ● *P. marginipennis* Wollaston, 1867, ♣ *P. capeneri*, Last, 1953, ◇ *P. septilibilis* Tottenham, 1949, ▲ *P. estrilda* sp. n., ▣ *P. upuzius* Tottenham, 1962, ○ *P. gilleti* Lévassieur, 1980.

Elytra wider than long (ratio 36:32), slightly wider posteriorly, punctation coarse and dense, punctures larger than those on scutellum, separation between punctures mostly one puncture diameter. Surface without microsculpture; setation greyish.

Legs. Metatibia as long as metatarsus, relative length of metatarsomeres: 1 = 7; 2 = 2.5; 3–4 = 2; 5 = 3.

Abdomen wide, gradually narrows from visible tergite III anteriorly and posteriorly. Elevated area between two basal lines on first three visible tergites densely punctate, punctation at base of all tergites finer than that on elytra, gradually becoming finer and sparser towards posterior margin on each tergite. Surface between punctures lacks microsculpture; setation similar to that on elytra.

Male. Protarsomeres 1–3 relatively slightly dilated and sub-bilobed, each covered ventrally with modified pale setae, protarsomere 4 narrower than preceding ones. Sternite IX (Fig. 16), aedeagus (Figs 14–15).

Female. Unknown.

DIFFERENTIAL DIAGNOSIS. *P. sepilibilis* is a sister species of *P. estrilda* sp. nov., but differs in having shorter antennae, slightly sparser punctation on elytra and in the shape of its aedeagus.

DISTRIBUTION. Democratic Republic of the Congo (Herman 2001).

Philonthus upuzius Tottenham, 1962

(Figs 17–19)

Philonthus upuzius Tottenham, 1962: 221.

TYPE MATERIAL. **Paratypes** 1♂, 2♀♀: ‘Muguga, 1.–18.1952, V. F. Eastop // *Philonthus upuzius* Tottenham TYPE [ochre oblong label handwritten]’ (BMNH).

ADDITIONAL MATERIAL STUDIED. **Zambia**, 2 spec., Wankie Game Res., 10.i.1959, elephant dung, C. E. Tottenham collection B.M. 1974-587 (BMNH, LHPC).

TYPE LOCALITY. Not cited, presumably Africa (Herman, 2001).

REDESCRIPTION. Body length 7.0–7.4 mm, length of fore body (to end of elytra) 3.5–3.7 mm. Head black, pronotum brown-black, elytra dark brown, suture, epipleura and posterior angles yellow-white, abdomen dark brown, with a slight blue, violet, golden iridescence, posterior margin of all tergites yellow-brown. Maxillary and labial palpi brown-yellow, antennomeres 1–2 yellow-brown, remaining antennomeres black-brown, legs brown-yellow, tibiae darker.

Head rounded, wider than long (ratio 23:19), clypeus with a short and deep line medially, between eyes 4 coarse punctures, separation between lateral and medial punctures very small, distance between medial punctures ten times that between medial and lateral punctures. Eyes larger than temples (ratio 9:6.5), inner margin with 1 long setiferous bristle in the middle, posterior margin with 2 coarse punctures. Surface with very fine transverse wavy and irregular microsculpture

Antennae long, at rest reach posterior margin of pronotum. Relative length of antennomeres: 1 = 9; 2–3 = 4.5; 4–6 = 3; 7–9 = 2.5; 10 = 2; 11 = 3.

Pronotum longer than wide (ratio 31:27), slightly narrower anteriorly. Anterior angles bearing several short bristles, posterior angles markedly rounded. Each dorsal row with 5 coarse punctures, puncture 2–4 equidistant, separation between punctures 1–2 and 4–5 slightly greater, each sublateral row with 2 punctures. Surface with irregular microsculpture that is more distinctive than that on head.

Middle of scutellum very finely and densely punctate, base and apex impunctate, diameter of punctures smaller than eye-facets, separated by one transverse diameter of a puncture; setation yellow-brown.

Elytra wider than long (ratio 39:35), parallel-sided. Punctuation fine and dense, diameter of punctures as large as eye-facets, separated by one or more puncture diameters. Surface lacks microsculpture; setation similar to that on scutellum.

Legs. Metatibia longer than metatarsus (ratio 27:20), relative length of metatarsomeres: 1 = 6; 2 = 3; 3 = 2.5; 4 = 2; 5 = 5.

Abdomen wide, gradually narrows posteriorly, first three visible tergites with two basal lines, elevated area between lines densely punctate. Punctuation at base of all tergites denser and finer than that on elytra, becoming finer and sparser towards posterior margin on each tergite. Surface lacks microsculpture; setation long and yellow-brown.

Male. Protarsomeres 1–3 simple, moderately dilated, each covered ventrally with modified pale setae, protarsomere 4 narrower than preceding ones. Aedeagus (Figs 17–18), sternite IX (Fig. 19).

Female. Unknown.

DIFFERENTIAL DIAGNOSIS. *P. upuzius* is similar to *P. bangoranus* but differs in having larger eyes, wider elytra and in the shape of its aedeagus.

DISTRIBUTION. Zambia.

Key to species of the *Philonthus marginipennis* species group

- 1 Dorsal rows of an irregular number of punctures on pronotum (L 4 – R 5), elytra brown, posterior fourth inclusive of epipleura testaceous. *P. bangoranus* Levasseur, 1980
- Dorsal rows of 4 punctures on pronotum. 2
- Dorsal rows of 5 punctures on pronotum. 3
- 2 Small species, 6.8 mm, antennae long, at rest reach almost posterior fourth of pronotum, elytra brown-red. *P. marginipennis* Wollaston, 1867
- Large species, 8.9 mm, antennae short, at rest reach middle of pronotum, elytra brown-red, shoulders wide and black. *P. capeneri* Last, 1953
- 3 Eyes as large as temples, antennae black. *P. estrilda* sp. n.
- Eyes larger than temples. 4
- 4 Elytra two-coloured, dark brown, suture, epipleura and posterior angles yellow-white, abdomen slightly blue, violet, golden iridescent. *P. upuzius* Tottenham, 1962
- Elytra uniformly coloured. 5
- 5 Ventral surface of antennomere 1 yellow-brown, remaining antennomeres dark brown, pronotum slightly longer than wide (ratio 29:26). *P. gilleti* Levasseur, 1980
- Antennae uniformly black-brown, pronotum as long as wide. *P. sepilibilis* Tottenham, 1940

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