

**A revision of the Afrotropical species  
of the *Philonthus arrowianus* species group  
(Coleoptera: Staphylinidae: Philonthina)**

Lubomír HROMÁDKA

Anny Letenskéé 7, CZ-120 00 Praha 2, Czech Republic; e-mail: hromadka@seznam.cz

**Abstract.** The *Philonthus arrowianus* species group of the genus *Philonthus* Stephens, 1829 is defined and six species included in it. Two species are described as new: *Philonthus currax* sp. nov. from Gabon and *Philonthus galago* sp. nov. from the Democratic Republic of the Congo, Zambia, Malawi and the Republic of South Africa. Four species are redescribed: *P. arrowianus* Bernhauer, 1931 (Ethiopia), *P. chappuisi* Bernhauer, 1939 (Kenya), *P. meges* Tottenham, 1939 (Ethiopia) and *P. trilobatus* Tottenham, 1949 (Democratic Republic of the Congo). All species of the *P. arrowianus* species group are keyed and the aedeagi and relevant morphological characters of all species are figured. A lectotype of *P. arrowianus* is designated.

**Key words.** Coleoptera, Staphylinidae, Philonthina, *Philonthus arrowianus* species group, taxonomy, new species, key, Afrotropical Region

### Introduction

*Philonthus* Stephens, 1829 is the largest genus of the subtribe Philonthina, currently containing more than 1,280 species that occur in all zoogeographical regions. It is represented in the Afrotropical Region by approximately 330 known species. Members of this genus are typical predators which pursue tiny insects and larvae. They inhabit various kinds of decaying organic matter, such as rotting plant material and animal remains, manure and excrements, but they are also found in moss. Many species are typical inhabitants of riversides and some live exclusively in the nests of birds or the burrows of small mammals.

TOTTENHAM (1962) classified some Afrotropical *Philonthus* species in five species groups: *P. caffer*, *P. circumcinctus*, *P. peliomerus*, *P. rudipennis* and *P. xanthorhapis-discoideus* species groups. HROMÁDKA (2008a,b,c, 2009a,b,c) introduced additional new species groups (*P. turbidus* group, *P. peripateticus* group, *P. abyssinus* group and *P. nigriceps* group), revised the representatives of *P. caffer* group and transferred some *Philonthus* species into the genus *Mentophilonthus* Levasseur, 1966.

## Material and methods

Specimens included in this study are deposited in the following institutions and private collections:

- BMNH Natural History Museum, London, United Kingdom (Max Barclay, Roger Booth, Martin Brendell);  
 FMNH Field Museum of Natural History, Chicago, USA (James M. Boone);  
 IRSB Institut royal des Science naturelles de Belgique, Bruxelles, Belgium (Didier Drugmand, Yvonnick Gerard);  
 JJRC Jiří Janák collection, Rtně nad Bílinou, Czech Republic;  
 LHPC Lubomír Hromádka collection, Praha, Czech Republic;  
 NMPC National Museum, Praha, Czech Republic (Jiří Hájek).

A double slash (//) is used to divide separate labels of type specimens. All measurements were taken with the abdomen stretched. All length measurements mentioned in the descriptions as ratios are dimensionless but can be converted to millimeters as 20 units = 1 mm. When indicating the relative lengths of antennal and tarsal segments, equal lengths of subsequent segments are abbreviated (e.g., 2–4 = 5 means that each of segments 2, 3 and 4 is of the same length of 5 units).

## Taxonomy

### *Philonthus arrowianus* species group

The newly defined *Philonthus arrowianus* species group is characterized especially by an unusual shape of the aedeagus: the median lobe terminates in a very large, sharply pointed hook in lateral view, and the paramere is deeply divergent apically with each lobe furnished with a moderate number of sensory peg setae. The species of the group are medium sized with body lengths of 10.7–13.8 mm.

The following species are included in the group:

|  |  |
|--|--|
| <i>Philonthus arrowianus</i> Bernhauer, 1931 | Ethiopia   |
| <i>Philonthus chappuisi</i> Bernhauer, 1939  | Kenya  |
| <i>Philonthus currax</i> sp. nov.            | Gabon  |
| <i>Philonthus galago</i> sp. nov.            | Democratic Republic of the Congo,<br>Zambia, Malawi, Republic of South<br>Africa |
| <i>Philonthus meges</i> Tottenham, 1949      | Ethiopia   |
| <i>Philonthus trilobatus</i> Tottenham, 1949 | Democratic Republic of the Congo   |

*Philonthus currax* sp. nov. is slightly aberrant in comparison to other species of the group. See under this species for details.

### *Philonthus arrowianus* Bernhauer, 1931

(Figs. 1–5)

*Philonthus arrowianus* Bernhauer, 1931: 585.

**Type locality.** Ethiopia, Mt. Zik'wala, ca. 2745 m a.s.l.

**Type material examined.** LECTOTYPE (here designated): ♂, 'Abyssinia, Mt. Zuquala, circa 9,000 ft. // Brit. Mus 1927-121 // 22.X.1926, Dr. H. Scott // Chicago NHMus, M. Bernhauer collection // arrowianus Bernh. Cotyp. // *Philonthus arrowianus* Bernh. Cotypus' (FMNH).

**Redescription.** Body length 11.1 mm, length of fore body (to end of elytra) 5.1 mm.

Colouration. Head black, maxillary palpi, labial palpi and antennae dark brown, base of antennomere 2 brown-yellow, pronotum and scutellum black-brown, elytra brown-red with sides vaguely darker, abdomen dark brown, with a clear rainbow iridescence, posterior margins of all tergites narrowly brown-red, femora and tarsi brown-yellow, tibiae darker.

Head slightly wider than long (ratio 32 : 30), parallel-sided, posterior angles rounded, each bearing one long and several shorter bristles. Four coarse punctures between eyes, distance between medial interocular punctures four times the distance between medial and lateral interocular puncture, lateral punctures slightly shifted anteriorly. Eyes shorter than temples (ratio 12 : 14). Three coarse punctures situated along medial margin of eye in its posterior half. Temporal area densely punctate. Surface without microsculpture.

Antennae slender and long, reaching posterior margin of pronotum when reclined. All antennomeres longer than wide. Relative lengths of antennomeres: 1 = 12; 2 = 6.5; 3 = 8; 4–7 = 5.5; 8–10 = 5; 11 = 6.

Pronotum highly convex, slightly longer than wide (ratio 44 : 41), inconspicuously narrowed anteriorly. Anterior angles conspicuously deflexed, vaguely obtusely rounded. Left dorsal row with six punctures, right row with seven punctures. Punctures 1–5 approximately equidistant, distance between punctures 5 and 6 shorter than distance between previous punctures. Each sublateral row with two punctures. Surface without microsculpture.

Scutellum coarsely and very densely punctate, diameter of punctures somewhat larger than eye facets, distance between punctures very small.

Elytra combined wider than long (ratio 54 : 49), slightly widened posteriorly. Punctuation coarse and sparse, punctures larger than eye facets, separated by 1.0–1.5 puncture diameters in transverse direction. Surface without microsculpture; setation light brown.

Legs. Metatarsus as long as metatibia, relative lengths of metatarsomeres: 1 = 8; 2 = 6; 3 = 5; 4 = 4; 5 = 8.

Abdomen wide, parallel-sided, very slightly narrowed posteriorly beginning with visible tergite V. First three visible tergites with two basal lines, elevated area between lines densely punctate. Punctuation of visible tergites very fine and very dense; punctures smaller than eye facets, separated by distance smaller than diameter of punctures, becoming sparser towards posterior margin of each tergite. Surface without microsculpture; setation similar to that on elytra.

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

Female. Unknown.

**Differential diagnosis.** *Philonthus arrowianus* may be distinguished from the similar *P. meges* by a narrower head, longer eyes and different shape of the aedeagus.

**Distribution.** Ethiopia.

**Note.** The species was described from two specimens, one from Mt. Zik'wala and one from Mt. Ch'ilalo, situated ca. 80 km apart. I have examined only the former specimen, which is hereby designated as the lectotype.

***Philonthus chappuisi* Bernhauer, 1939**

(Figs 6–9)

*Philonthus chappuisi* Bernhauer, 1939: 84.**Type locality.** Kenya, Mt. Aberdare, Kinangop, 2600 m a.s.l.**Type material examined.** HOLOTYPE: ♂, 'KENYA, Mais forest Kinangop, Mt. Aberdare, ver's Ouest 2600m, Mission de l'Omo, C. Arambourg, P. A. Chappuis & R. Jeannel, 1932–33. // *Philonthus chappuisi* Bernhauer, TYPE [ochre oblong label, handwritten]' (FMNH).**Redescription.** Body length 10.9 mm, length of fore body (to end of elytra) 5.0 mm.

Colouration. Head black, maxillary and labial palpi yellow-brown, mandibles dark brown, antennae black, base of antennomere 1 yellow-brown, clypeus along anterior margin and antennal sockets narrowly yellow-brown, pronotum black-brown, elytra dark brown with strong coppery shine, abdomen black-brown, femora and tarsi yellow-brown, tibiae of all legs black.

Head rather flat, slightly wider than long (ratio 30 : 28), parallel-sided, posterior angles marked, eyes slightly projecting, somewhat shorter than temples (ratio 10 : 11), between eyes with four punctures, distance between medial interocular punctures five times the distance between medial and lateral puncture; temporal area with many coarse punctures; surface with microsculpture consisting of transverse waves.

Antennae long, when reclined exceeding posterior margin of pronotum by length of antennomere 11. All antennomeres longer than wide. Relative lengths of antennomeres: 1 = 12; 2 = 6; 3 = 7; 4–6 = 6; 7 = 5; 8 = 4.5; 9–10 = 4; 11 = 7.5.

Pronotum slightly wider than long (ratio 40 : 38), hardly narrowed anteriorly, each dorsal row with four punctures, distance between punctures 3–4 somewhat smaller than distance between punctures 2–3, each sublateral row with two punctures, puncture 1 situated on level between punctures 2–3 of dorsal rows, surface with microsculpture similar to that on head.

Scutellum finely and densely punctate, punctures equal in size to eye facets, separated by distance smaller than diameter of puncture.

Elytra combined distinctly wider than long (ratio 52 : 46), slightly widened posteriorly, very densely and finely punctate, diameter of punctures somewhat larger than eye facets, distance between punctures smaller than diameter of punctures, surface without microsculpture; setation dark.

Abdomen wide, slightly narrowed anteriorly and posteriorly from visible tergite III. First four visible tergites with two basal lines, elevated area between lines impunctate, punctuation of visible tergites somewhat finer than that on elytra, becoming finer and sparser towards posterior margin of each tergite, surface between punctures without microsculpture; setation similar to that on elytra.

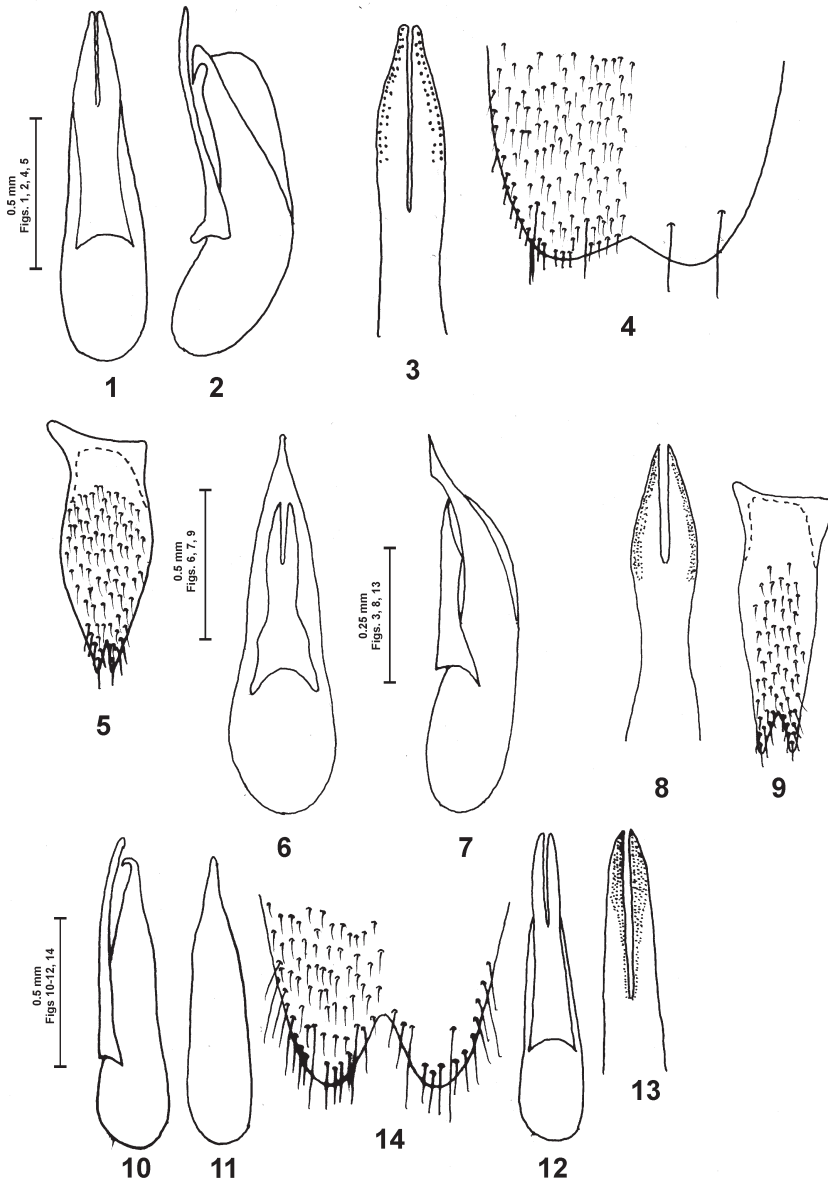
Legs. Metatibia vaguely longer than metatarsus (ratio 35 : 33), lengths of metatarsomeres: 1 = 10; 2 = 5; 3 = 4.5; 4 = 4; 5 = 8.

Male. Protarsomeres 1–3 markedly dilated and sub-bilobed, each covered with modified pale setae ventrally, sternite IX (Fig. 9), aedeagus (Figs. 6–8).

Female. Unknown.

**Differential diagnosis.** *Philonthus chappuisi* is similar to *P. trilobatus* but differs from it by wider elytra, lighter legs and a different shape of the aedeagus.

**Distribution.** Kenya, known only from the type locality.



Figs. 1–14. *Philonthus* species. 1–5 – *P. arrowianus* Bernhauer, 1931 (1 – aedeagus, ventral view; 2 – aedeagus, lateral view; 3 – apex of of paramere with sensory peg setae, ventral view; 4 – apical portion of male sternite VIII, ventral view; 5 – male sternite IX, ventral view). 6–9 – *P. chappuisi* Bernhauer, 1939 (6 – aedeagus, ventral view; 7 – aedeagus, lateral view; 8 – apex of paramere with sensory peg setae, ventral view; 9 – male sternite IX, ventral view). 10–14 – *P. currax* sp. nov. (10 – aedeagus, ventral view; 11 – aedeagus without paramere, ventral view; 12 – aedeagus, lateral view; 13 – apex of paramere with sensory peg setae; 14 – apical portion of male sternite VIII, ventral view).

*Philonthus currax* sp. nov.

(Figs. 10–14)

**Type locality.** Gabon, Loango.

**Type material.** HOLOTYPE: ♂, 'GABON, Loango // Holotypus *Philonthus currax* Hromádka det. 2009 [oblong red label, printed] // *Philonthus currax* Tottenham, TYPE [oblong ochre label, handwritten] // *Philonthus mimus* Fauvel, coll. et det. A. Fauvel, R.I.Sc.N.B. 17.479 [oblong ochre label, handwritten]' (IRSB). PARATYPES: 4 spec., same data as in holotype (IRSB). All paratypes with red printed oblong labels.

**Description.** Body length 11.3–13.8 mm, length of fore body (to end of elytra) 5.3–6.0 mm.

Colouration. Head black, pronotum brown-black, scutellum, elytra and abdomen orange-yellow, maxillary and labial palpi yellow-brown, mandibles brown, antennomeres 1–3 and 10–11 pale brown, remaining antennomeres dark brown, legs yellow-brown.

Head transverse, wider than long (ratio 41 : 36), inconspicuously narrowed posteriorly, posterior angles obtusely rounded, each with several short bristles. Four coarse punctures between eyes, distance between medial interocular punctures about four times the distance between medial and lateral interocular puncture. Eyes large and slightly convex, much longer than temples (ratio 14 : 8), with several coarse punctures situated along inner margin of each eye; temporal area with several variably large punctures. Surface without microsculpture.

Antennae slender and long, reaching posterior margin of pronotum when reclined. All antennomeres longer than wide, relative lengths of antennomeres: 1 = 15; 2 = 12; 3 = 14; 4–5 = 8; 6–7 = 7; 8–10 = 6; 11 = 9.

Pronotum wider than long (ratio 55 : 50), slightly narrowed anteriorly, sides slightly curved, anterior angles rectangular, conspicuously deflexed, vaguely obtusely rounded, posterior angles markedly rounded. Each dorsal row with 10 fine punctures of variable distance between each pair, each sublateral row with three fine punctures, puncture 2 distinctly shifted laterad. Surface with very fine microsculpture.

Entire scutellum very finely and densely punctate, punctures as large as eye facets, arranged into transverse rows, occasionally slightly contiguous, distance between punctures very small.

Elytra combined wider than long (ratio 69 : 60), slightly widened posteriorly. Punctuation very dense and fine, diameter of punctures somewhat larger than eye facets, punctures separated mostly by a distance smaller than diameter of punctures, surface without microsculpture; setation long and yellow.

Legs. Metatarsus longer than metatibia (ratio 44 : 42), relative lengths of metatarsomeres: 1 = 14; 2 = 7; 3 = 6; 4 = 5; 5 = 10.

Abdomen wide, gradually narrowed posteriorly. First four visible tergites with two basal lines, elevated area between lines impunctate. Punctuation of visible tergites finer than that on elytra, punctures separated by one puncture diameter in transverse direction. Surface without microsculpture; setation similar to that on elytra.

Male. Protarsomeres 1–3 markedly dilated and sub-bilobed, each covered with modified pale setae ventrally, protarsomere 4 distinctly narrower than preceding ones. Sternite VIII (Fig. 14), aedeagus (Figs 10–13).

Female. Protarsomeres 1–3 much less dilated than in male, protarsomere 4 small, all protarsomeres bearing modified pale setae ventrally.

**Differential diagnosis.** *Philonthus currax* sp. nov. may be distinguished from all species of this species group by the paler body colouration, larger number of punctures in dorsal row of pronotum and different shape of the aedeagus.

**Etymology.** *Currax* (Lat.), meaning swift, adjective. The specimens were found in the collection of IRSN, bearing the identification labels by Fauvel (as *P. mimus*) and Tottenham (as *P. currax*). None of these names have ever been published. I am using Tottenham's original name, because the name suggested by Fauvel is already preoccupied by *P. mimus* Smetana, 1959 from Albania.

**Distribution.** Gabon, known only from the type locality.

**Discussion.** In comparison to other species of the *P. arrowianus* group, *Philonthus currax* sp. nov. is aberrant in the following characters: presence of a large number of punctures in the dorsal rows on the pronotum, presence of impunctate elevated areas between the basal lines on the tergites, a conspicuously different arrangement of the peg setae on the parameres and the shape of the terminal hook of the median lobe. The shape of the aedeagus is, however, otherwise rather similar to other species of the *P. arrowianus* group. For that reason, I tentatively include this species into *P. arrowianus* group, but its placement needs to be reexamined in the future studies.

### *Philonthus galago* sp. nov.

(Figs. 15–24)

**Type locality.** Republic of South Africa, Natal, Underberg-Mkomazana Lodge 1400–1800 m a.s.l.

**Type material.** HOLOTYPE: ♂, 'RSA-Natal, 11.ii.2001, 29°37'S–29°25'E, Underberg-Mkomazana Lodge 1400–1800m, Dr. R. Fencl lgt. // Holotypus *Philonthus galago* sp. nov. Hromádka, det. 2009 [red oblong printed label]' (NMP). PARATYPES: **REPUBLIC OF SOUTH AFRICA:** 1 ♀, same data as in holotype (JJRC). **DEMOCRATIC REPUBLIC OF THE CONGO:** 2 ♀♀, Congo, Kundelungu, N. P., 6.iii.1950, N. Leleup (LHPC). **MALAWI:** 2 ♀♀, 1 ♂, North. Reg. Nyika Plateau, Chelinda 2300m, 1.-21.xii.1981, R. Jocqué (MRAT). **ZAMBIA:** 1 ♂, Lusaka, vii.1985, M. Burda lgt. (LHPC). All paratypes with red printed label.

**Description.** Body length 11.2–11.9 mm, length of fore body (to end of elytra) 5.9–6.3 mm.

Colouration. Head, pronotum, scutellum and abdomen black, elytra carmine, elytral suture, shoulders and posterior margin narrowly black, maxillary and labial palpi dark brown, terminal palpomere of both palpi vaguely paler, mandibles and antennae black, base of antennomere 2 brown-yellow. Legs black-brown, tarsomeres 4–5 of meso- and metatarsus brown-yellow.

Head quadrate, as long as wide, parallel-sided behind eyes, posterior angles obtusely rounded. Eyes flat, shorter than temples (ratio 11 : 16). Four punctures between eyes, distance between medial interocular punctures about four times the distance between medial and lateral interocular puncture. Four smaller punctures arranged in a straight line near postero-median angle of each eye. Temporal area with several punctures of variable size. Surface without microsculpture.

Antennae long and slender, reaching posterior fourth of pronotum when reclined. Antennomeres 1–8 and 11 longer than wide, antennomeres 9–10 as long as wide. Relative lengths of antennomeres: 1 = 11; 2 = 8; 3–8 = 5; 9–10 = 4; 11 = 6.5.

Pronotum longer than wide (ratio 44 : 40), inconspicuously narrowed anteriorly. Anterior angles almost rectangular, posterior angles markedly rounded. Each dorsal row with five more



or less equidistant punctures. Each sublateral row with two punctures, puncture 1 on the same level as puncture 3 of dorsal row. Surface without microsculpture.

Middle portion of scutellum coarsely and densely punctate, lateral portions impunctate. Punctures larger than eye facets, distances between punctures very small. Setation long and black.

Elytra combined as long as wide, indistinctly widened posteriad, coarsely and densely punctate, punctures similar to those on scutellum, separated by one puncture diameter in transverse direction. Surface between punctures without microsculpture; setation long and brown-yellow.

Legs. Metatibia longer than metatarsus (ratio 36 : 34). Metatarsomere 1 somewhat longer than metatarsomere 5, relative lengths of metatarsomeres: 1 = 11; 2 = 6; 3 = 5; 4 = 4; 5 = 10.

Abdomen slightly narrowed anteriorly and posteriorly from visible tergite V. First four visible tergites with two basal lines, elevated area between lines very sparsely punctate. Base of all tergites more densely punctate than elytra, punctuation becoming distinctly sparser towards posterior margin of each tergite. Surface without microsculpture.

Male. Protarsomeres 1–3 strongly dilated, sub-bilobed, each densely covered with modified pale setae ventrally, protarsomere 4 small and heart-shaped. Sternite VIII (Fig. 18), sternite IX (Fig. 19), aedeagus (Figs. 15–17, 22–24).

Female. Protarsomeres 1–3 less dilated than in male, protarsomere 4 small, only protarsomeres 1–3 bearing modified pale setae ventrally. Tergite X (Fig. 20), gonocoxite of female genital segment (Fig. 21).

**Differential diagnosis.** *Philonthus galago* sp. nov. may be distinguished from the similar *P. meges* by shorter eyes and antennae, wider elytra and a different shape of the aedeagus.

**Etymology.** The name of this species, a noun in apposition, is the generic Latin name of the African Senegal Bushbaby *Galago senegalensis* E. Geoffroy Saint-Hilaire, 1796.

**Distribution.** Democratic Republic of the Congo, Malawi, Zambia, Republic of South Africa (Natal).

### *Philonthus meges* Tottenham, 1949

(Figs 25–29)

*Philonthus meges* Tottenham, 1949: 332.

**Type locality.** Ethiopia [Abyssinia], Mt. Zik'wala, ca. 2945 m a.s.l.

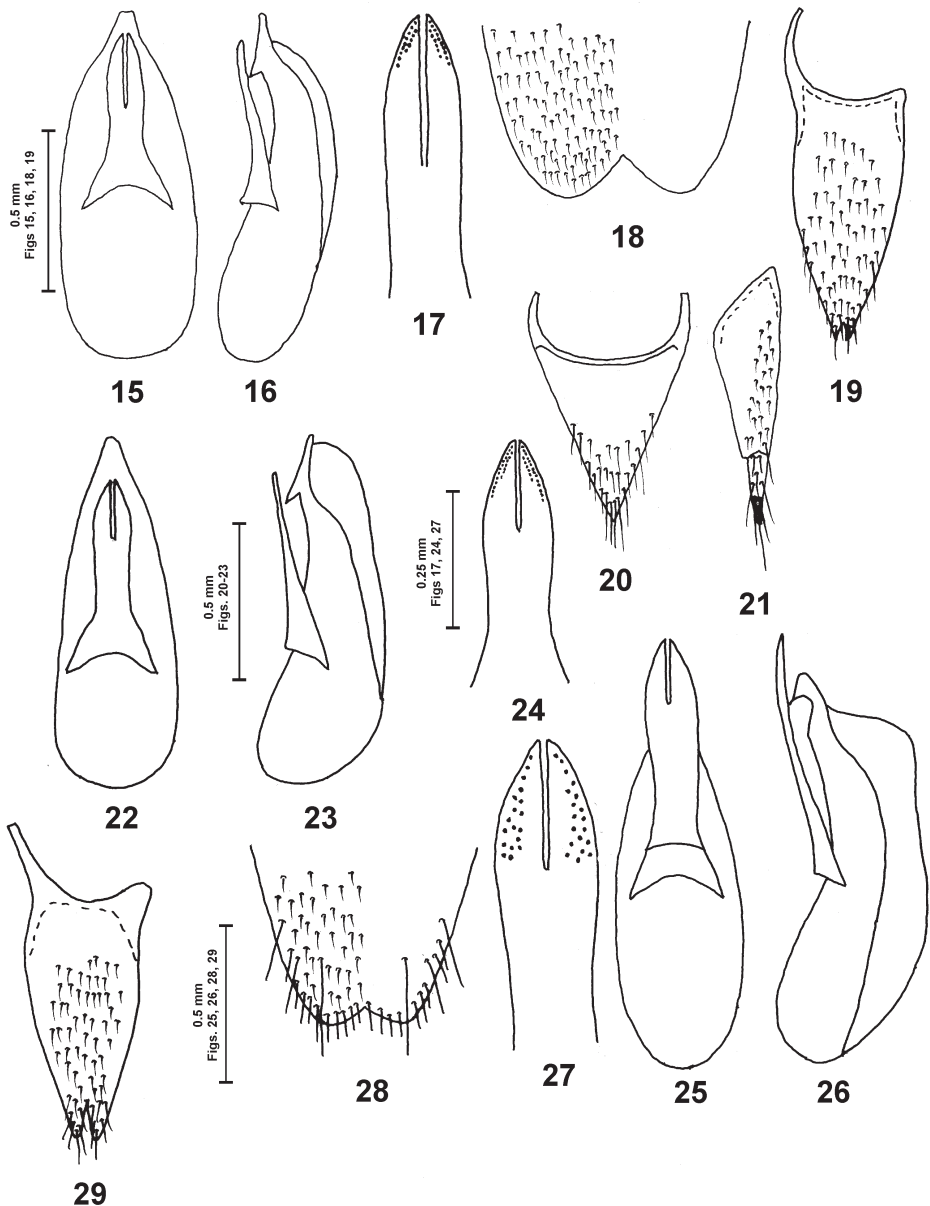
**Type material examined.** HOLOTYPE: ♂, 'Abyssinia: Mt. Zuqala circa 9,000 feet, (2945 m), 22.x.1926, Dr. H. Scott, Brit. Mus. 1927-127. // *Philonthus meges* Tottenham, TYPE [white oblong label, handwritten]' (very teneral) (BMNH).

**Additional material examined.** ETHIOPIA: ♂, Bahr-Dar, 4.vi.1967, P. Štys lgt. (LHPC); ♀, Bale, 8 km. W. of Dinshu, 0706 N, 3944 E, 3,050m, xii.1971, without collector (LHPC).

**Redescription.** Body length 11.0–11.4 mm, length of fore body (to end of elytra) 4.5–4.8 mm.

Colouration. Head black, pronotum, scutellum and abdomen black-brown, elytra red, anterior and posterior angles and suture narrowly brown-black. Maxillary and labial palpi brown-yellow, apex of palpomere 3 of both palpi paler, mandibles and antennae dark brown, base of antennomere 2 yellow-brown, femora and tibiae brown, tarsi brown-yellow, slightly paler distally. Abdomen with rainbow-coloured iridescence.





Figs 15–29. *Philonthus* species. 15–25 – *P. galago* sp. nov. (15–21 – Republic of South Africa, 22–24 – Malawi). 15 – aedeagus, ventral view; 16 – aedeagus, lateral view; 17 – apex of paramere with sensory peg setae; 18 – apical portion of male sternite VIII, ventral view; 19 – male sternite IX, ventral view; 20 – female tergite X, ventral view; 21 – gonocoxite of female genital segment; 22 – aedeagus, ventral view; 23 – aedeagus, lateral view; 24 – apex of paramere with sensoria peg setae. 25–29 – *P. meges* Tottenham, 1949 (25 – aedeagus, ventral view; 26 – aedeagus, lateral view; 27 – apex of paramere with sensory peg setae; 28 – apical portion of male sternite VIII, ventral view; 29 – male sternite IX, ventral view).

Head quadrate, as long as wide, each posterior angle with several variably long black bristles. Eyes flat, as long as temples. Posterior margin of each eye with three coarse punctures. Temporal area with many setiferous punctures of variable size. Four coarse punctures between eyes, distance between medial interocular punctures four times the distance between medial and lateral puncture. Medial punctures indistinctly shifted anteriorly. Surface without microsculpture.

Antennae slender and long, reaching posterior margin of pronotum when reclined. All antennomeres longer than wide. Relative lengths of antennomeres: 1 = 11; 2 = 7; 3 = 8; 4–7 = 6; 8–10 = 5; 11 = 7.

Pronotum longer than wide (ratio 42 : 38.5), indistinctly narrowed anteriorly, anterior angles conspicuously deflexed, vaguely obtusely rounded, almost rectangular, each with several short bristles. Sides with several variably long bristles. Left dorsal row with five punctures, right row with seven punctures, left sublateral row with three punctures, right row with two punctures. Surface without microsculpture.

Scutellum coarsely and densely punctate. Punctures larger than eye facets, distance between punctures very small.

Elytra combined wider than long (ratio 50 : 45), parallel-sided. Punctuation coarser and sparser than on scutellum. Surface between punctures without microsculpture; setation dark.

Legs. Metatibia as long as metatarsus. Relative lengths of metatarsomeres: 1 = 13; 2 = 6; 3 = 5; 4 = 4; 5 = 7.5.

Abdomen nearly parallel-sided, indistinctly narrowed posteriorly. First four visible tergites with two basal lines, elevated area between lines impunctate. Punctuation at base of all visible tergites finer but denser than that on elytra, becoming even finer and sparser towards posterior margin of each tergite. Surface between punctures without microsculpture; setation similar to that on elytra.

Male. Protarsomeres 1–3 markedly dilated and sub-bilobed, each covered with modified pale setae ventrally, protarsomere 4 narrower than preceding ones. Sternite VIII (Fig. 28), sternite IX (Fig. 29), aedeagus (Figs 25–27).

Female. Protarsomeres 1–3 moderately dilated, very slightly sub-bilobed, each covered with modified pale setae ventrally, protarsomere 4 scarcely dilated, distinctly narrower than preceding ones.

**Differential diagnosis.** *Philonthus meges* is very similar in habitus to *P. galago* sp. nov., from which it may be distinguished by longer eyes and antennae and narrower elytra; it differs from *P. arrowianus* by wider head and shorter eyes and from both latter species by a different shape of the aedeagus.

**Distribution.** Ethiopia.

### *Philonthus trilobatus* Tottenham, 1949

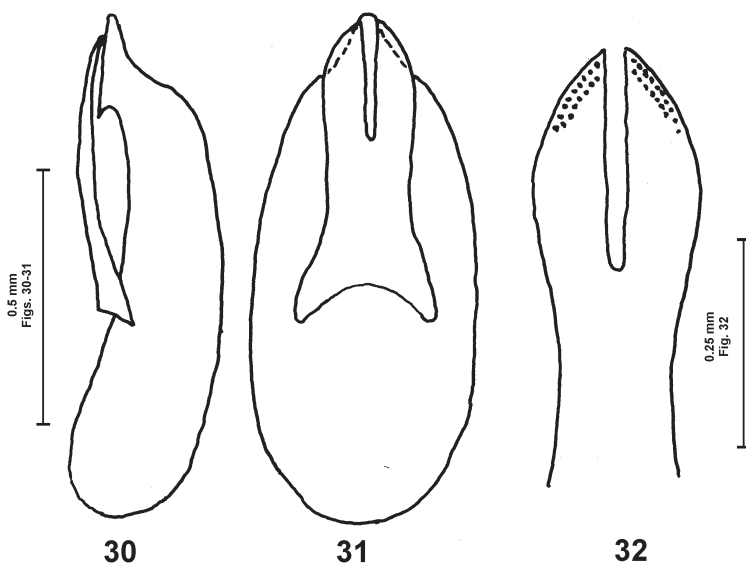
(Figs. 30–32)

*Philonthus trilobatus* Tottenham, 1949: 335.

**Type locality.** Democratic Republic of the Congo, Lubero.

**Type material examined.** HOLOTYPE: ♂, 'Democratic Republic of the Congo, Lubero, 24.-28.viii.1932, L. Burgeon, Musée du Congo, // *Philonthus trilobatus* Tottenham, TYPE [yellow square label, handwritten]' (BMNH).

**Redescription.** Body length 12.1 mm, length of fore body (to end of elytra) 5.2 mm.



Figs. 30–32. *Philonthus trilobatus* Tottenham, 1949 (30 – aedeagus, ventral view; 31 – aedeagus, lateral view; 32 – apex of paramere with sensory peg setae).

**Colouration.** Entirely black, abdomen with slightly bluish iridescence, base of antennomere 2 red.

Head almost quadrate, wider than long (ratio 32.5 : 30), sides behind eyes parallel-sided, posterior angles obtusely rounded, each bearing one long black bristle. Distance between medial and lateral punctures four times distance between medial and lateral puncture. Medial punctures slightly shifted anteriorly. Eyes vaguely shorter than temples (ratio 11.0 : 13.0). Posterior margin of each eye with three coarse punctures. Temporal area with several coarse punctures. Surface without microsculpture.

Antennae slender and long, all antennomeres longer than wide, reaching posterior margin of pronotum when reclined. Relative lengths of antennomeres: 1 = 9; 2–3 = 7; 4–7 = 5; 8–9 = 4.5; 10 = 4; 11 = 7.

Pronotum slightly wider than long (ratio 48 : 45), parallel-sided. Anterior angle conspicuously deflexed, vaguely obtusely rounded, with several variably long bristles; posterior angles markedly rounded. Sides bearing bristles of variable length. Each dorsal row with five coarse punctures, punctures 1–4 equidistant, distance between punctures 4–5 slightly larger; each sublateral row with two coarse punctures, puncture 2 slightly shifted laterad. Surface without microsculpture.

Scutellum moderately densely punctate except at base and margins, setation dark.

Elytra combined wider than long (ratio 48 : 45), indistinctly widened posteriorly, moderately strongly and sparsely punctated, punctures distinctly larger than eye facets, separated by 1.5–2 puncture diameters in transverse direction. Surface without microsculpture; setation dark.

Legs. Metatibia slightly longer than metatarsus (ratio 30 : 29), relative lengths of metatarsomeres: 1 = 9; 2 = 5; 3 = 4; 4 = 3.5; 5 = 8.

Abdomen wide, indistinctly narrowed posteriorly. First three visible tergites with two basal lines, elevated area between lines with scattered punctures. Punctuation at base of all tergites finer and denser than that on elytra, becoming sparser and finer towards posterior margin of each tergite. Surface without microsculpture; setation similar to that on elytra.

Male. Protarsomeres 1–3 strongly dilated and sub-bilobed, each covered with modified pale setae ventrally, protarsomere 4 distinctly narrower than preceding ones. Aedeagus (Figs. 30–32).

Female. Unknown.



Fig. 33. Distribution of the species of the *Philonthus arrowianus* species group. ● – *P. arrowianus* Bernhauer, 1931; ♣ – *P. chappuisi* Bernhauer, 1939; ♥ – *P. currax* sp. nov.; ▼ – *P. galago* sp. nov.; \* – *P. meges* Tottenham, 1949; ◇ – *P. trilobatus* Tottenham, 1949.

**Differential diagnosis.** *Philonthus trilobatus* may be distinguished from the similar *P. chappuisi* by a narrower head, darker legs and different shape of the aedeagus.

**Distribution.** Democratic Republic of the Congo, known only from the type locality.

### Key to *Philonthus arrowianus* species group

1. Each dorsal row of pronotum with four punctures. .... *P. chappuisi* Bernhauer, 1939
- Each dorsal row of pronotum with five punctures. .... 2
- Each dorsal row of pronotum with 6–10 punctures. .... 4
2. Eyes shorter than temples, elytra carmine or black. .... 3
- Eyes as long as temples; elytra red, with suture and anterior and posterior angles narrowly brown-black. .... *P. meges* Tottenham, 1949
3. Elytra carmine, with suture, shoulders and posterior margin narrowly black, eyes distinctly shorter than temples (ratio 11 : 16). .... *P. galago* sp. nov.
- Elytra black, eyes slightly shorter than temples (ratio 11 : 13). ....  
..... *P. trilobatus* Tottenham, 1949
4. Each dorsal row of pronotum with six or seven punctures, eyes shorter than temples (ratio 12 : 14), scutellum and elytra black, abdomen black with rainbow-colored iridescence, legs brown-yellow, tibiae vaguely darker. .... *P. arrowianus* Bernhauer, 1931
- Each dorsal row of pronotum with 10 punctures. Scutellum, elytra and abdomen orange-yellow. Eyes distinctly longer than temples (ratio 14 : 8). .... *P. currax* sp. nov.

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