

**A revision of the Afrotropical species of *Philonthus* (s. str.) *turbidus* species-group
(Coleoptera: Staphylinidae: Philonthina)**

**Revise druhů skupiny *Philonthus* (s. str.) *turbidus* z Afrotropické oblasti
(Coleoptera: Staphylinidae: Philonthina)**

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Abstract. The *turbidus* group of the nominotypic subgenus of the genus *Philonthus* Stephens, 1829, is revised. The group comprises 11 Afrotropical species. Five of them are described as new: *Philonthus* (s. str.) *camelus* sp. n. (Tanzania: Kilimandjaro), *Philonthus* (s. str.) *pan* sp. n. (Botswana, Malawi, Namibia, Republic of South Africa, and Zambia), *Philonthus* (s. str.) *papio* sp. n. (Republic of Guinea), *Philonthus* (s. str.) *psittacus* sp. n. (Zambia), and *Philonthus* (s. str.) *xerus* sp. n. (Sudan). The remaining six species are redescribed: *P.* (s. str.) *bulbifer* Tottenham, 1956, *P.* (s. str.) *musurus* Tottenham, 1956, *P.* (s. str.) *ramosus* Levasseur, 1968, *P.* (s. str.) *systi* Hromádka, 1980, *P.* (s. str.) *tumulinus* Tottenham, 1955, and *P.* (s. str.) *turbidus* Erichson, 1840. The male genitalia of all species and morphological details of some species are illustrated and identification keys to all species are provided.

INTRODUCTION

The *Philonthus* (s. str.) *turbidus* group

Diagnosis. This species group was exhaustively characterized by Smetana (1995):

“The group is characterized by the combination of the following character states: body and appendages variably pigmented; disc of head with scattered setiferous punctures; temporal carina on head absent; mandible stout; dorsal rows on pronotum each with six to nine punctures; sublateral rows on pronotum each with three punctures; lateral margins of pronotum each parallel to each other posteriorly in front of basal margin; first three segments of front tarsus sub-bilobed, less dilated in female than in male; first segment of hind tarsus short, as long as last segment; elytra each with subhumeral seta; elytral punctation simple; abdomen with first three visible tergites with two basal lines; posterior basal line on visible tergites two and three straight at middle; punctation of tergites moderately fine and dense; elevated area between two basal lines on visible tergites two and three punctate, with striate microsculpture; basal impression on visible tergites one and two simple; tergite 8 emarginate apically in male, simply arcuate apically in female; male ventrite 8 with three large setae on each side, medio-apical emargination with semimembranous extension; male genital segment with styli of tergite 9 simple, not modified; tergite 10 not pigmented, with apex entire; median lobe of aedeagus simple, not spoon-like dilated, without tooth on face adjacent to paramere, with apical portion curved away from paramere; paramere fully developed, without semimembranous apical stylus, bifurcate, symmetrically located, without setae except for rudimentary

apical setae, sensory peg setae forming two longitudinal rows; female genital segment with accessory sclerite; second gonocoxites each with minute stylus; tergite 10 not pigmented, apex entire; styli of tergite 9 simple, not modified.”

The identification of females of this species group remains problematic (Tottenham 1961). Although I saw around 1,400 specimens, I did not find any reliable characteristic features for the identification of females except *P. ramosus* and *P. camelus* sp. n.

MATERIAL AND METHODS

This study is based on 1,396 specimens of the *turbidus* species group, which were obtained from the following institutional and private collections: CHP – author’s private collection; CJR – Jiří Janák private collection (Rtyně nad Bílinou, Czech Republic); CKS – Pavel Krásenský private collection (Chomutov, Czech Republic); CSB – Michael Schülke private collection (Berlin, Germany); DEI – Deutsche Entomologisches Institut, Münchenberg, Germany (Lothar Zerche); FMNH – Field Museum of Natural History, Chicago, USA (James Boone); IRSNB – Institut royal des Sciences naturelles de Belgique, Bruxelles, Belgium (Didier Drugmandt); MNHUB – Museum der Alexander-Humboldt-Universität, Berlin, Germany (Manfred Uhlig); NHML – The National History Museum, London, England (Martin Brendell and Maxwell Barclay); MZF – Museo Zoologico de la Specola Firenze, Italy (Arnaldo Bordoni); NMB – Naturhistorisches Museum, Basel, Schweiz (Michael Brancucci); NMP – Muséum National d’Histoire Naturelle, Paris, France (Théodore Deuve); TMNHP – Transvaal Museum of Natural History, Pretoria, Republic of Africa (Ruth Muller); and ZMUH – Zoological Museum University of Helsinki, Finland (Hans Silfverberg). The following abbreviations are used in the descriptions: l = length, w = width, L = left dorsal row of pronotum, R = right dorsal row of pronotum.

LIST OF SPECIES

Philonthus (s. str.) *bulbifer* Tottenham, 1956
Philonthus (s. str.) *camelus* sp. n.
Philonthus (s. str.) *musurus* Tottenham, 1956
Philonthus (s. str.) *pan* sp. n.
Philonthus (s. str.) *papio* sp. n.
Philonthus (s. str.) *psittacus* sp. n.
Philonthus (s. str.) *ramosus* Levasseur, 1968
Philonthus (s. str.) *stysi* Hromádka, 1980
Philonthus (s. str.) *tumulinus* Tottenham, 1955
Philonthus (s. str.) *turbidus* Erichson, 1840
Philonthus (s. str.) *xerus* sp. n.

TAXONOMIC PART

To facilitate determination, I have divided the *turbidus* species group into three subgroups. They are characterized as follows:

Subgroup 1: Apex of median lobe in lateral view rectangularly curved and extended; paramere larger, V-shaped, with pegs extending along the whole length of inner margins (*P. stysi* and *P. turbidus*).

Subgroup 2: Apex of median lobe in lateral view slightly curved; paramere smaller, branches divergent, V- or U-shaped, with the pegs extending along the apical half of inner margins, only in *P. ramosus* extending along the whole length of inner margins (*P. camelus* sp. n., *P. musurus*, *P. pan* sp. n., *P. papio* sp. n., *P. psittacus* sp. n., and *P. ramosus*).

Subgroup 3: Apex of median lobe in lateral view enlarged and bulbous at apex; paramere small with short, parallel-sided, only narrowly separated branches (*P. bulbifer*, *P. tumulinus*, and *P. xerus* sp. n.).

Subgroup 1

Key to species

- 1. Punctuation of elytra sparser, punctuation of scutellum finer, branches of paramere very short. *P. stysi*
- Punctuation of elytra denser, punctuation of scutellum coarser, branches of paramere long. *P. turbidus*

Philonthus (s. str.) *turbidus* Erichson, 1840

(Figs 1-8)

Philonthus (s. str.) *turbidus* Erichson, 1840: 484.

Philonthus (s. str.) *pharao* Saulcy, 1864: 639.

Philonthus (s. str.) *punctipennis* Wollaston, 1867: 240 (non Solier, 1849).

Philonthus (s. str.) *rubiginosus* Solsky, 1867: 30.

Philonthus (s. str.) *wollastoni* Scheerpeltz, 1933: 1368.

Type material. For type designation see Smetana (1995: 253).

Additional material studied (586 spec.). **ANGOLA:** 29 spec., Rio Longa, 4 mls S Lussusso, 8.iii.1972, Southern African Exp. B. M. 1973 (NHML, CHP); **BOTSWANA:** 11 spec., 5 km SW San-ta-Wani, Safari Lodge, 19°27'01"S/23°46"E, 9.iii.1993, lux, M. Uhlig leg. (MNHUB); 1 spec., Sepupa, Okavango-Delta, 18°48'S/22°08'E, 3.iii.1994, sievings grass + food refuse, M. Uhlig leg. (MNHUB); 8 spec., Shakawe Fishing Camp, 18°27'S/21°56'E, 6.iv.1998, J.+ M. Deckert leg. (MNHUB); 14 spec., R. Thamalakane, 7 ml sw, NE Maun, 20.iv.1972, (B 15) (FMNH); 14 spec., Maun, 21.iv.1972, (B 16) (FMNH); 6 spec., L. Ngami, 12 mls, NE Sehithwa, 16.-17.iv.1972, (89), (FMNH); 8 spec., Kuke Pan, 20°59'S/22°25'E, 14.-15.iv.1972 (FMNH); **DEMOCRATIC REPUBLIC OF CONGO:** 87 spec., Lac Eduard: Vitshumbi U. V., 25-31.iii.1953, 7.v.1953, 21.i.1954, J. Verbecke-KEA (IRSNB); 6 spec., Lac Eduard Mosenenda, 24.i.1954, J. Verbecke-KEA (IRSNB); **EGYPT:** 1 spec., Cairo (CHP); **ETHIOPIA:** 1 spec., Goba de Meule naerve, 1934-1935, (IRSNB); 2 spec., Kaffa, 1935 (IRSNB); 2 spec., Kaffa Gojeb valley 410 km, vii.1971, G. D. Rougemont leg., B. M. 1970 (NHML); 2 spec., Bale, 16 km N. of Dinshu, 150 m, 3.xii.1971, R. O. Clark leg., B. M. 1973 (NHML); 13 spec., Ilubabor, Gambela, 5.xii.1971, R. O. Clark leg., B. M. 1973-450 (NHML); 2 spec., Lago Koka, 16.i.1989, L. Attaroll leg. (MZF); 1 spec., Akeke river, about 2400 m, L. Azzaroli leg. (MZF); **GHANA:** 1 spec., Bechem, iii.1986, Werner leg. (CSB); **MADAGASCAR:** 19 spec., 135 km E Antananarivo, Andasibe env., 900 m, 26.xi.-10.xii.2000, S. Murzin leg. (CJR); 8 spec., Fianarantsoa distr., Ranomafana env., 28.i.-6.ii.1995, Ivo Jeniš (CJR); 3 spec., Est, Andranokobaka, (N of Moramanga), 800 m, 13.i.1995, forêt dégradée et prairie second., lux, G. Dunay + J. Janák leg. (CJR); 3 spec., Est, Ambatombe pr. Andilamena, 900 m, 17.i.1995, lux, G. Dunay + J. Janák leg. (CJR); 2 spec., Est, Anosibe Ifody pr. Moramanga, 1000-1200 m, 31.i-2.ii.1993, J. Janák leg. (CJR); 8 spec., 30 km ESE of Betroka, Vohitrosa forest: 2km NEE of 1825 m, 1600 m, 19.-23.xii.1998, J. Janák leg. (CJR); 2 spec., Andasibe (Périnet), 930-1000 m, 6.-7.2.1993, J. Janák leg. (CJR); 2 spec., 35 km ESE Betroka, 2 km N of Andranobe, 1450 m, 28.xii.1998, J. Janák leg. (CJR); 3 spec., Antananarivo distr., Manankazo (CJR); 3 spec., An-

tanamarivo distr., Manankazo env., 9.-13.xii.1995, Stolarczyk leg. (CJR); 1 spec., Toamasina distr., 1.5 km ESE Amoditafonana, 48°44'44"E 17°27'43"S, 26.-27.xi.2000, O. Hovorka leg. (CJR); 1 spec., Est, Sambava, Riv. Anovona env., 0-20 m, 3.iii.1996, lux, J. Janák + P. Moravec leg. (CJR); 2 spec., Mahajanga distr., Ampatika env., ii.17.-20.1995, Stolarczyk leg. (CJR); 1 spec., Tamatave prov., Moramanga env., 27.-30.xii.1996, J. Jeniš leg. (CJR); 3 spec., Antsiranana prov., Ankarana, Ambondromifehy, 5.-6.xii.1996, J. Jeniš leg. (CJR); 44 spec., Centr. Plat., Andasibe, Perinet, 19.-31.xii.2001, 450 m, V. Dolin + R. Andreeva leg. (CJR); 2 spec., 30 km SE of Betroka, 2 km NE of Tsanerena, 900 m, 31.xii.1998, J. Janák leg. (CJR); 2 spec., Fianarantsoa prov., Ranomafana env., 29.xi.-2.xii.1995, Ivo Jeniš leg. (CJR); 1 spec., Morondava distr., Kirindi forest, 4.-8.i.2002, J. Rolčík leg. (CJR); 1 spec., Manindray, E of Sakahara, 30.i.1995, 700-800 m, J. Janák leg. (CJR); 1 spec., N Andringitra: Vohidray rdg. 3-4 km SSE of Amboarafibe, 10.-11.iv.2001, J. Janák leg. (CJR); **MOZAMBIQUE**: 1 spec., Gorongosa Nar. Park, 25.-26.xii.2004, A. Dorchin leg. (CHP); **NAMIBIA**: 23 spec., Linyanti, E Caprivi, 10.-18.x.1970, A. Strydom (TMNHP); 1 spec., Waterberg NP Camp: Bernabé de la Bat, 20°30'S/17°14'E, 19.xii.1993, reed sievings, M. Uhlig leg. (MNHUB); 8 spec., Kavango, Popa Falls, 19-20.i.1993, F. Koch leg. (MNHUB); 17 spec., 18°14'S/21°43'E, Kavango Mahango Game Reserve, 2.-3.x.1993, Koch leg. (MNHUB, CHP); 1 spec., Rundu Distrikt Mile 46, Agric Research Station, 67 km SW northern Kalahari woodland, 24.-29.iii.2002, V. Richter + M. Uhlig leg. (MNHUB); 7 spec., Kavango: Popa Falls, 18°07'S/21°35'E, 26.ii-13.iii.1992, lux, Exp. ZMB, M. Uhlig leg. (MNHUB); 23 spec., Sepupa, Okavango-Delta, 18°13'S/21°45'E, 24.xi.1993, sievings grass + food refuse, M. Uhlig leg. (MNHUB, CHP); 6 spec., East Caprivi: Mudumu NP: Buffalo Trails Camp, 18°10'S/23°26'E, 12.xii.1992, lux, Exp. ZMB M. Uhlig leg. (MNHUB); **REPUBLIC OF SOUTH AFRICA**: 31 spec., Northern prov., Camp David, 5 km Ofeolaco, 475 m, 17.-24.i.2002, S. Murzin leg. (CSB); 27 spec., Swakopmund, 26.-30.i.1972 (NHML, CHP); 2 spec., Olifants River, 3 mls, W. Clanwilliam, 6.i.1972, Southern African Exp. B. M. (MNHL, CHP); **YEMEN**: 1 spec., Socotra Is., 3.xii.2003, David Král leg. (NHB); **ZAMBIA**: 21 spec., Kafue River, Rimo-Marine Motel, 15°49'07"S/28°12'03"E, 16.iii.1993, lux, M. Uhlig leg. (MNHUB, CHP); **ZIMBABWE**: 9 spec., Victoria Falls: Zambezi NP-Camp, 17°53'S/25°49'E, 11.-12.xii.1993, lux, M. Uhlig leg. (MNHUB); 4 spec., Kariba env., Mopami-Bay Camp, 16°31'S/28°49'E, 480 m, without date, M. Uhlig leg. (MNHUB); 4 spec., Kariba env., Mopami-Bay Camp, 16°31'S/28°49'E, 480 m, 20.-21.ii.2000, Lichtfang, V. Heinig leg. (CSB); 33 spec., Cape Province: De Hoop Nat. Res., 34°27'S/20°24'E, 16.-18.xi.1993, lux, M. Uhlig leg. (MNHUB, CHP); 1 spec., East Cape, Clainwillian, 32°11'S/18°53'E, 7.-8.xii.1996, E. Arndt leg. (MNHUB); 2 spec., Cape Prov. Wilderness NP Lagulei Malachite, 33°59'0"S/22°40'6"E, without date, M. Uhlig leg. (MNHUB); 3 spec., Transvaal, Tschioise, 22°37'S/30°10'E, 24.-25.xi.1966, E. Arndt leg. (MNHUB); 1 spec., Cape Province: Bontenbok NP, 34°04'S/20°27'E, 14.ix.1993, lux, M. Uhlig leg. (MNHUB); 24 spec., Kwa-Zulu-Natal, N'Dumu Game Res., 26°55'S/32°19'E, 30.i.-3.ii.1995, F. Koch leg. (MNHUB, CLP); 23 spec., Sodwana Bay Nat. P., 20.xii.1992, F. Koch leg. (MNHUB, CLP); 2 spec., E. Transvall, Kruger P.K., Satara, 15.-18.xii.1985 (FMHD); 2 spec., Wankie Nat. Park, xi.1961, light trap (NHML, CHP); **SPAIN**: 2 spec., Cádiz Rio Guadiaro (NE Sotogrande), 31.v.1991, Wrasell leg. (CSB); **USA**: 1 spec., California, S. Diego co., Pauma Valley, 20 km N Escondito, 28.iii.1992, M. Schülke leg. (CSB).

Redescription. Body length 8.2-10.8 mm with stretched abdomen, length of forebody (to the end of elytra) 4.2-5.1 mm. Head black, pronotum, elytra and abdomen piceous black or brownish piceous, suture of elytra sometimes brownish piceous, maxillary and labial palpi testaceous, antennae piceous black, legs brownish yellow, pronotum, particularly in posterior half with golden iridescence, abdomen markedly bluish-purple iridescent.

Head slightly longer than wide (l/w ratio = 1.20/1.12), parallel-sided, slightly narrowed behind eyes, posterior angles obtusely rounded, temples somewhat longer than eyes (ratio of temple length/eye length = 0.52/0.48). Distance between medial interocular punctures about four times the distance between the medial and interocular puncture. Temporal area finely and sparsely punctate, with long black-brown bristles, posterior margin of eye with several punctures. Dorsal surface with exceptionally fine microsculpture consisting of transverse waves.

Antennae (Fig. 8) long, antennomere 3 slightly longer than antennomere 2, remaining antennomeres longer than wide, gradually becoming shorter, terminal antennomere shorter than two preceding antennomeres combined.

Pronotum longer than wide (l/w ratio = 1.56/1.40), almost parallel-sided, slightly narrowed anteriorly. Each dorsal row with 5-9 punctures. Each sublateral row also with 2-4 punctures. Microsculpture similar to that on head, but somewhat coarser. Anterior angles with several black bristles.

Numbers of punctures in the dorsal rows of pronotum:

L + R	number of specimens	L + R	number of specimens
5 + 6	8	7 + 7	201
6 + 5	6	8 + 6	9
6 + 6	133	8 + 7	26
6 + 7	72	8 + 8	14
6 + 8	8	9 + 1	1
7 + 6	58	9 + 8	1

Scutellum densely punctate, setation black.

Elytra somewhat longer than wide (l/w ratio = 1.88/1.84), widened posteriorly, at base slightly wider than pronotum. Punctuation fine and dense, punctures equal in size to eye facets, distance between punctures almost as large as their diameter. Surface between punctures without microsculpture. Setation brownish yellow.

Legs: metatarsus somewhat shorter than metatibia (ratio of length of tarsus/length of tibia = 1.12/1.16), metatarsomere 1 somewhat longer than metatarsomeres 2-3 combined, metatarsomere 5 somewhat longer than metatarsomeres 3 and 4 combined.

Punctuation of abdomen finer and denser than that on elytra, becoming sparser and finer towards the apex of each tergite. First three visible tergites with two basal lines, elevated area between basal lines densely punctate. Surface between punctures with rather fine microsculpture. Setation yellowish brown.

Male. Protarsomeres 1-3 strongly dilated, sub-bilobed, each densely covered with modified long yellowish setae ventrally, protarsomere 4 narrower than the preceding ones. Ventrite 9 (Fig. 7), aedeagus (Figs 1-6).

Differential diagnosis. In size, habitus, and the shape of the median lobe *P. turbidus* is similar to *P. styxi*. It can be distinguished from the latter by longer branches of the paramere.

Distribution. Africa: Botswana, Canary Islands, Cape Verde Islands, Egypt, Eritrea, Ethiopia, Gabon, Madagascar, Madeira, Morocco, Mozambique, South Africa, Namibia, Senegal, Somalia, Sudan, Syria, Tanzania, Zambia, and Zimbabwe. Asia: India, Saudi Arabia. Europe: Russia, Spain. North America: USA.

***Philonthus* (s. str.) *stysi* Hromádka, 1987**
(Figs 9-13)

Philonthus (s. str.) *stysi* Hromádka, 1987: 21.

Type material. **Holotype** ♂, labelled: **ETHIOPIA**, Bar-Dar, 4.6.1967, P. Štys leg. (red label, printed) (CHP).

Redescription. Body length 10.0 mm with stretched abdomen, length of forebody (to the end of elytra) 5.0 mm. Head black, pronotum, elytra and abdomen brownish black, antennae brownish yellow, maxillary, labial palpi and legs yellowish brown, all tibiae slightly darker, abdomen markedly bluish iridescent.

Head longer than wide (l/w ratio = 1.16/1.12). Eyes distinctly shorter than temples (ratio of eye length/temple length = 0.44/0.56), slightly narrowed behind eyes. Posterior angles obtusely rounded. Distance between medial and interocular punctures four times the distance between medial and interocular puncture. Temporal area and posterior margins of eyes with several fine punctures. Surface with very fine microsculpture consisting of transverse waves.

Antennae long and slender, antennomere 3 as long as antennomere 2, antennomeres 4-7 longer than wide, antennomeres 8-10 gradually shortened, terminal antennomere distinctly shorter than two preceding ones combined.

Pronotum somewhat longer than wide (l/w ratio = 1.16/1.12), parallel-sided, very slightly narrowed anteriorly. Each dorsal row with 7 punctures. Each sublateral row with 3 punctures. Sides and anterior angles with several black bristles of unequal length. Surface with microsculpture similar to that on head, shiny.

Scutellum coarsely and densely punctate.

Elytra somewhat longer than wide (l/w ratio = 1.92/1.88), widened posteriorly. Punctuation fine and relatively sparse, punctures somewhat larger than eye facets, distance between punctures a little more than their diameter. Surface without microsculpture. Setation brownish black.

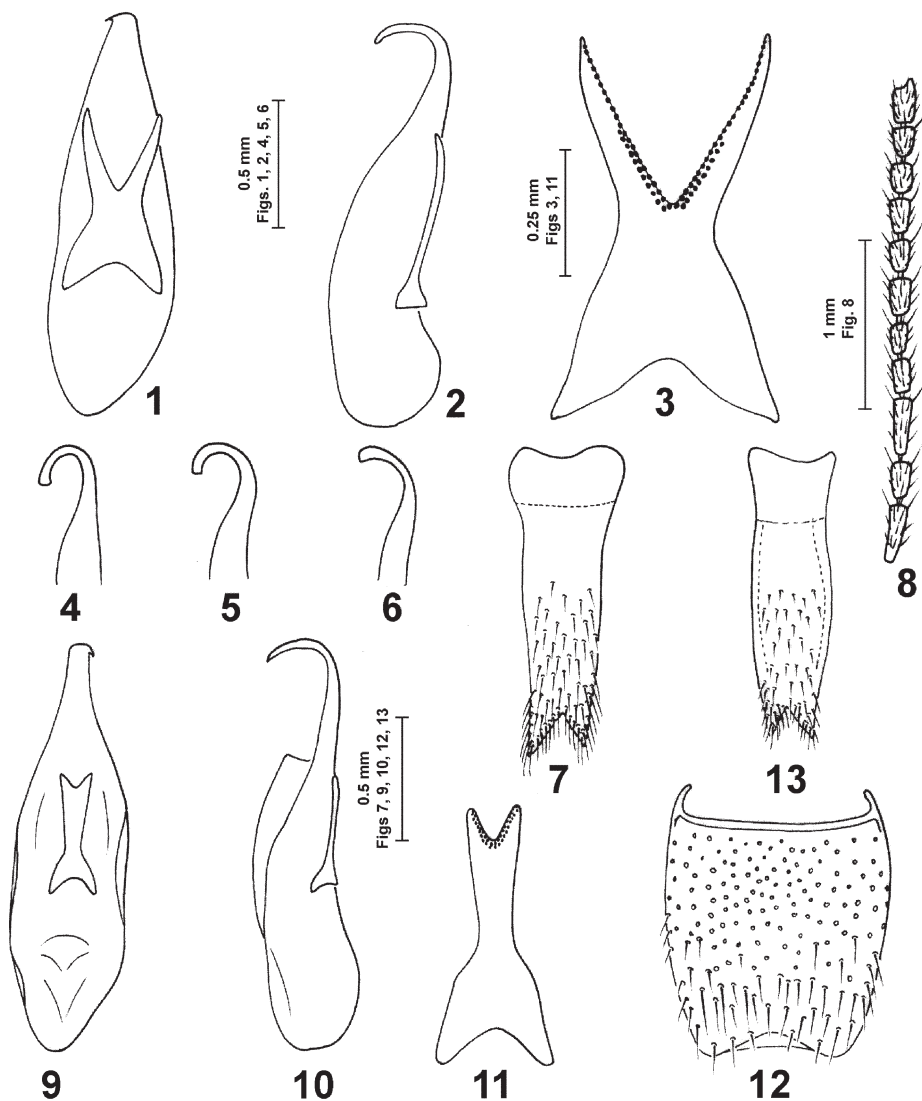
Abdominal tergites 1-3 with two basal lines, elevated area between basal lines finely and moderately punctate, punctuation on basal portion of remaining tergites dense, gradually sparser towards apex of each tergite. Setation piceous-black. Surface without microsculpture.

Legs fairly strong, metatarsus as long as metatibia, metatarsomere 1 somewhat shorter than metatarsomeres 2-4 combined, terminal metatarsomere somewhat longer than the two preceding ones combined.

Male. Protarsomeres 1-3 strongly dilated, sub-bilobed, each densely covered with modified pale setae ventrally, protarsomere 4 distinctly narrower than the preceding ones, not sub-bilobed. Ventrite 8 (Fig. 12), ventrite 9 (Fig. 13), aedeagus (Figs 9-11).

Differential diagnosis. *Philonthus stysi* can be differentiated from the very similar *P. turbidus* by the shorter branches of the paramere.

Distribution. Ethiopia.



Figs 1–13. 1–8: *Philonthus* (s. str.) *turbidus*. 1 – aedeagus, ventral view, 2 – aedeagus, lateral view, 3 – paramere with sensory peg setae, ventral view, 4 – apex of median lobe, lateral view, 5 – apex of median lobe, lateral view, 6 – apex of median lobe, lateral view, 7 – ventrite 8, ventral view, 8 – antennae. 9–13: *Philonthus* (s. str.) *stysi*. 9 – aedeagus, ventral view, 10 – aedeagus, lateral view, 11 – paramere with sensory peg setae, ventral view, 12 – ventrite 8, ventral view, 13 – ventrite 9, ventral view.

Obr. 1–13. 1–8: *Philonthus* (s. str.) *turbidus*. 1 – aedeagus, ventrální pohled, 2 – aedeagus, laterální pohled, 3 – paramera, ventrální pohled, 4 – špiče aedeagu, laterální pohled, 5 – špiče aedeagu, laterální pohled, 6 – špiče aedeagu, laterální pohled, 7 – ventrit 8, ventrální pohled, 8 – tykadla. 9–13: *Philonthus* (s. str.) *stysi*. 9 – aedeagus, ventrální pohled, 10 – aedeagus, laterální pohled, 11 – paramera, ventrální pohled, 12 – ventrit 8, ventrální pohled, 13 – ventrit 9, ventrální pohled.

Subgroup 2

Key to species

- 1 Branches of paramere V-shaped. 2
- Branches of paramere broadly U-shaped. 3
- 2 Apex of 9 ventrite straight, without median emargination. *P. papio* sp. n.
- Apex of 9 ventrite with median emargination. *P. pan* sp. n.
- 3 Head behind eyes strongly narrowed towards neck. *P. camelus* sp. n.
- Head behind eyes very slightly narrowed towards neck. 4
- 4 Antennae very short, reaching only posterior half of pronotum. *P. ramosus*
- Antennae long, reaching end of pronotum. 5
- 5 Apex of median lobe in lateral view distinctly bent with a small tooth. *P. psittacus* sp. n.
- Apex of median lobe in lateral view without tooth and almost straight. *P. musurus*

Philonthus (s. str.) *camelus* sp. n.

(Figs 14-19)

Type material. **Holotype** ♂, labelled: **TANZANIA** ('Allemande') Afrique or., Kilimadjaro, versant sud-est, Alluaud-Jeannel (red label, printed) (CHP).

Description. Body length 9.0 mm with stretched abdomen, length of forebody (to the end of elytra) 4.7 mm. Head black, pronotum, elytra and abdomen blackish brown, abdomen faintly iridescent, maxillary and labial palpi testaceous, antennomeres 1 and 2 brownish yellow, remaining antennomeres brown, legs yellowish brown.

Head (Fig. 19) oval, somewhat longer than wide (l/w ratio = 1.04/1.00), strongly narrowed behind eyes, posterior angles obliterated. Eyes slightly convex, about as long as temples (ratio of eye length/temple length = 0.52/0.54). Distance between medial interocular punctures four times the distance between medial and interocular puncture, temporal area with several punctures. Surface with very fine and dense microsculpture consisting of transverse and oblique waves.

Antennae moderately long, reaching end of pronotum, antennomere 2 a little shorter than antennomere 3, antennomeres 4-8 distinctly longer than wide, antennomere 9 slightly longer than wide, antennomere 10 about as long as wide, terminal antennomere shorter than two preceding ones combined.

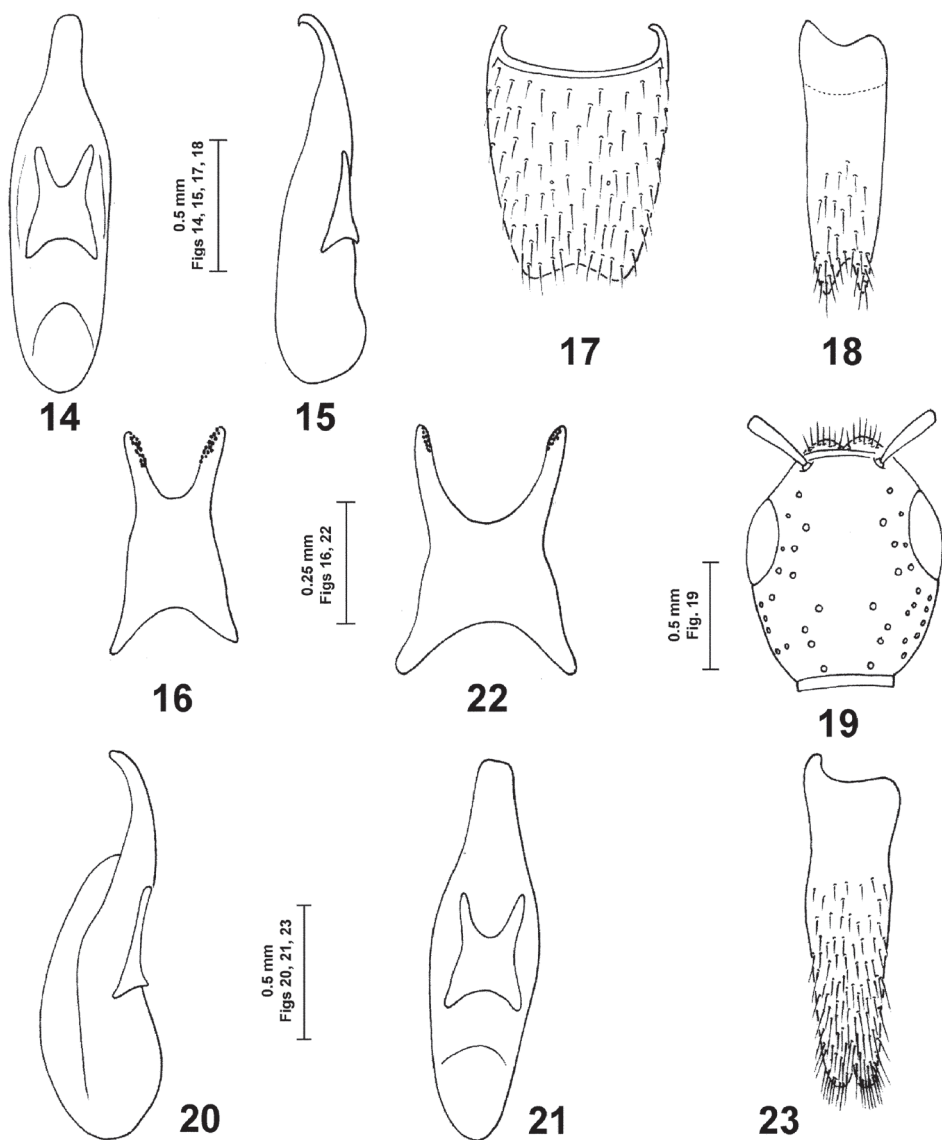
Pronotum distinctly longer than wide (l/w ratio = 1.44/1.28), slightly narrowed anteriorly, sides before anterior angles slightly arcuate and with one long black bristle. Left dorsal row with 6 punctures, right dorsal row with 7 punctures. Each sublateral row with 2 punctures. Microsculpture similar to that on head.

Scutellum densely and coarsely punctate, punctures smaller than on elytra.

Elytra somewhat longer than wide (l/w ratio = 1.60/1.56), slightly widened posteriorly, densely and coarsely punctate, punctures a little larger than eye facets, distance between punctures smaller than their diameter. Surface without apparent microsculpture. Setation testaceous.

Abdomen parallel-sided, from tergite 6 slightly narrowed towards apex, first three visible tergites with two basal lines, elevated area between the lines sparsely punctate. Punctuation at the base of all tergites slightly finer and denser than on elytra, gradually finer and sparser towards the apex of each tergite. Surface without microsculpture, shiny.

Legs: metatibia a little longer than metatarsus (ratio of length of tibia/length of tarsus = 1.08/1.00), metatarsomere 1 a little longer than metatarsomeres 2 and 3 combined,



Figs 14–23. 14–19: *Philonthus* (s. str.) *camelus* sp. n. 14 – aedeagus, ventral view, 15 – aedeagus, lateral view, 16 – paramere with sensory peg setae, ventral view, 17 – ventrite 8, ventral view, 18 – ventrite 9, ventral view, 19 – head, dorsal view. 20–23: *Philonthus* (s. str.) *musurus*. 20 – aedeagus, ventral view, 21 – aedeagus, lateral view, 22 – paramere with sensory peg setae, ventral view, 23 – ventrite 9, ventral view.

Obr. 14–23. 14–19: *Philonthus* (s. str.) *camelus* sp. n. 14 – aedeagus, ventrální pohled, 15 – aedeagus, laterální pohled, 16 – paramera, ventrální pohled, 17 – ventrit 8, ventrální pohled, 18 – ventrit 9, ventrální pohled, 19 – hlava, dorsální pohled. 20–23: *Philonthus* (s. str.) *musurus*. 20 – aedeagus, ventrální pohled, 21 – aedeagus, laterální pohled, 22 – paramera, ventrální pohled, 23 – ventrit 9, ventrální pohled.

metatarsomeres 2-4 equal in length, terminal metatarsomere somewhat shorter than metatarsomeres 3 and 4 combined.

Male. Protarsomeres 1-3 strongly dilated, sub-bilobed, each covered with modified pale setae ventrally, protarsomere 4 distinctly narrower than the preceding ones, triangular. Ventrite 8 (Fig. 17), ventrite 9 (Fig. 18), aedeagus (Figs 14-16).

Differential diagnosis. *P. camelus* sp. n. can be distinguished from all members of the subgroup by the different shape of the head and the aedeagus.

Distribution. Tanzania, Kilimandjaro.

Name derivation. The name of this species, a noun in apposition, is the Latin generic name of the African camel (*Camelus dromedarius* Linnaeus, 1758).

***Philonthus* (s. str.) *musurus* Tottenham, 1956**
(Figs 20-23)

Philonthus (*Philonthus*) *musurus* Tottenham, 1965: 241.

Type material. **Holotype** ♂, labelled: **UGANDA**, Jinja, xii.1954, P.S. Corbet, Tottenham collection, B.M. 1974-587 (round label with red margins, handwritten) (NMHL). **Paratypes:** 4 spec., with the same locality data as in holotype (round labels with yellow margins, handwritten) (NMHL). **Additional material studied.** **UGANDA:** 2 spec., Jinja, xii.1954, P.S. Corbet leg. (MNHUB).

Redescription. Body length with stretched abdomen 9.2-9.7 mm, length of fore body (to the end of elytra) 4.6-4.9 mm. Body entirely black, suture of elytra narrowly and obscurely reddish, maxillary, labial palpi and legs brownish yellow. Abdomen with faint metallic sheen.

Head quadrate, somewhat longer than wide (l/w ratio = 1.04/1.00), eyes shorter than temples (ratio of eye length/temple length = 0.40/0.48), sides behind eyes parallel. Distance between medial and interocular punctures less than three times the distance between medial and interocular puncture. Surface with very irregular, almost indistinct microsculpture. Posterior angles moderately densely and coarsely punctate, slightly projecting.

Antennae long, reaching end of pronotum, antennomere 3 distinctly longer than antennomere 2, following antennomeres longer than wide, terminal antennomere slightly longer than penultimate antennomere.

Pronotum somewhat longer than wide (l/w ratio = 1.44/1.36), parallel-sided, slightly narrowed anteriorly. Posterior angles strongly rounded. Each dorsal row with 6-8 punctures. Each sublateral row with 2 punctures. Anterior angles with several longer black bristles. Surface with very fine and dense and for the most part transverse and waved microsculpture.

Number of punctures in the dorsal rows of pronotum:

L+R	number of specimens	L + R	number of specimens
6 + 6	2	7 + 8	2
6 + 7	3	8 + 6	1
7 + 6	2	8 + 7	1
7 + 7	5		

Scutellum densely punctate, punctures somewhat larger than eye facets. Surface without microsculpture. Setation dark.

Elytra distinctly longer than wide (l/w ratio = 1.88/1.76), slightly widened posteriad. Punctuation very fine and dense, punctures somewhat larger than eye facets, distance between punctures a little smaller than their diameter. Surface between punctures smooth and shiny, without microsculpture. Setation brown.

First three visible tergites of abdomen with two basal lines, elevated area between the lines densely punctate. Punctuation of tergites finer and denser than on elytra, punctures as large as eye facets. Surface without microsculpture. Setation brown.

Legs: metatibia somewhat longer than metatarsus (ratio of length of tibia/length of tarsus = 1.16/1.08), metatarsomere 1 as long as metatarsomeres 2 and 3 combined, terminal metatarsomere somewhat longer than two preceding ones combined.

Male. Protarsomeres 1-3 markedly dilated and sub-bilobed, each covered with modified yellow-brown setae ventrally, protarsomere 4 much narrower than the preceding ones. Ventrite 9 (Fig. 23), aedeagus (Figs 20-22).

Differential diagnosis. *Philonthus musurus* can be distinguished from *P. ramosus* by the distinctly longer antennae and from all species of this subgroup by the different shape of the aedeagus.

Distribution. Angola, Ethiopia, Senegal, Uganda.

***Philonthus* (s. str.) *pan* sp. n.**

(Figs 24-28)

Type material. **Holotype** ♂, labelled: **NAMIBIA**: Kavango: Mahango, Game Reserve Piknik, Piknik, 24.xi.1993, 18°13'S/21°45'E, lux, leg. M. Uhlig (red label, printed) (MNHUB). **Paratypes** (146 spec.): **ANGOLA**: 3 spec., Chianga, 21-24.iii.1972, Southern African Exp. B.M.1972 (A 36) (NHML, CHP). **BOTSWANA**: 1 spec., Okavango-Delta, Moremi Wildlife Reserve, Third Bridge Campsite, 19°14'22"S/23°21'24"E, lux, leg. M. Uhlig (MNHUB); 3 spec., Chobe NP, Savuti-Camp, 11.iii.1993, 18°33'55"S/24°03'53"E, lux, leg. M. Uhlig (MNHUB); **MALAWI**: 9 spec., Mulanoe Mts. env, 22.xii.2001, J. Bezděk leg. (CHP); 8 spec., Balaka, 19.XII.2001, J. Bezděk (CHP); 8 spec., Jall Env., 30 km of Zomba, 26-27.xii. 2001, J. Bezděk leg. (CHP); 8 spec., Jall. env., 30 km of Zomba, 26-27.xii. 2001, J. Bezděk leg. (CHP); 7 spec., Katsungu env., 27.xii.2001, J. Bezděk lgt. (CHP); 10 spec., Kahingina Forest Reserve, 40 km N of Kasungu, 20.xii.2001, J. Bezděk lgt. (CHP); 6 spec., Masenjeve, 80 km S of Blantyre, 21.-22.xii.2001, J. Bezděk lgt. (CHP, CKC); **NAMIBIA**: 1 spec., 1.iv.1993, 18°07'16"S/21°34'51"E, Popa Falls, Islands bans Sof Okavango reed, papyrus sievings, leg. M. Uhlig (MNHUB); 3 spec., 1.iii.1994, 18°14'S/21°43'E, Kavango: Mahango Game Reserve Piknik, site lux, leg M. Uhlig (MNHUB); 20 spec., Rundu distrikt, Mile 46 Agric Research Station, 67 km SW Rundu northern, Kalahari woodland, A.C. Kistner, 18°18'06.4"S/19°15'29.7"E, light collecting + light tower, 24.-29.iii.2002, leg. V. Richter & M. Uhlig (MNHUB, CHP); **REPUBLIC OF SOUTH AFRICA**: 1 spec., xii.1992, leg. F. Koch (MNHUB); 1 spec., 2.i.1995, 34°04'S/20°27'E, Cape Province: Bontebok, leg. J. Deckert (MNHUB); 4 spec., 1.1990, Tugela River, Stanger Natal, leg. Werner (DEI); 9 spec., Northern Prov., Camp David, 5 km of Colaco 475m, 17.-21.i.2002, leg. S. Kurtin (CSB); 1 spec, 30.-31.i.1995, Kwazulu-Natal N'dumu Game Reserve, 26°55'S/32°19'E, leg. F. Koch (MNHUB); **SWAZILAND**: 2 spec.,

17.-19.xi.1996, 26°29'S/31°11'E, Milwane Game Res., leg. E. Arndt (MNHUB); **ZAMBIA**: 1 spec., 23.iii.1993, 13°06'03"S/31°47'32"E, South Luangwa NP Mfuwe Crocodile Farm 450m, lux, leg. M. Uhlig (MNHUB); 14 spec., 29.iii.1993, 15°02'35"S/26°00'09"E, Kafue NP., Chuanga Camp, lux, leg. M. Uhlig (MNHUB); 1 spec., 17.iii.1993, 15°53'S/28°11'E, Chinganganka, lux, leg. M. Uhlig (MNHUB); **ZIMBABWE**: 13 spec., 28.xi.-1.xii.1993, 20°33'S/28°30'E, Matopos NP, lux, leg. M. Uhlig (MNHUB); 1 spec., 11.-12.xii.1993, 17°53'S/25°49'E, Victoria Falls, Zambezi-NP-Camp, lux, leg. M. Uhlig (MNHUB). (All paratypes with red labels, printed).

Description. Body length 11.0-12.2 mm with stretched abdomen, length of forebody (to the end of elytra) 5.2-5.4 mm. Head black, pronotum black-brown, occasionally a little paler, elytra reddish brown or brownish black, abdomen brownish black, markedly golden, violet-blue iridescent, maxillary and labial palpi testaceous, antennae brownish black, only base of antennomeres 1 and 2 paler, legs testaceous.

Head slightly longer than wide (l/w ratio = 1.24/1.08), posterior angles gently rounded, temples somewhat longer than eyes (ratio of temple length/eye length = 0.52/0.48), eyes flat. Distance between medial interocular punctures about four times the distance between the medial and lateral puncture. Temporal area with very fine and sparse punctures. Surface with dense and coarse microsculpture consisting of mostly transverse waves.

Antennae reaching end of pronotum, antennomere 3 distinctly longer than antennomere 2, following antennomeres a little longer than wide, gradually shorter, terminal antennomere much shorter than two preceding ones combined.

Pronotum longer than wide (l/w ratio = 1.44/1.36), parallel-sided, slightly narrowed anteriorly. Each dorsal row with 6-9 punctures. Each sublateral row with 2-3 punctures. Surface with microsculpture coarser than on head. Anterior angles with several black bristles.

Number of punctures in the dorsal rows of pronotum:

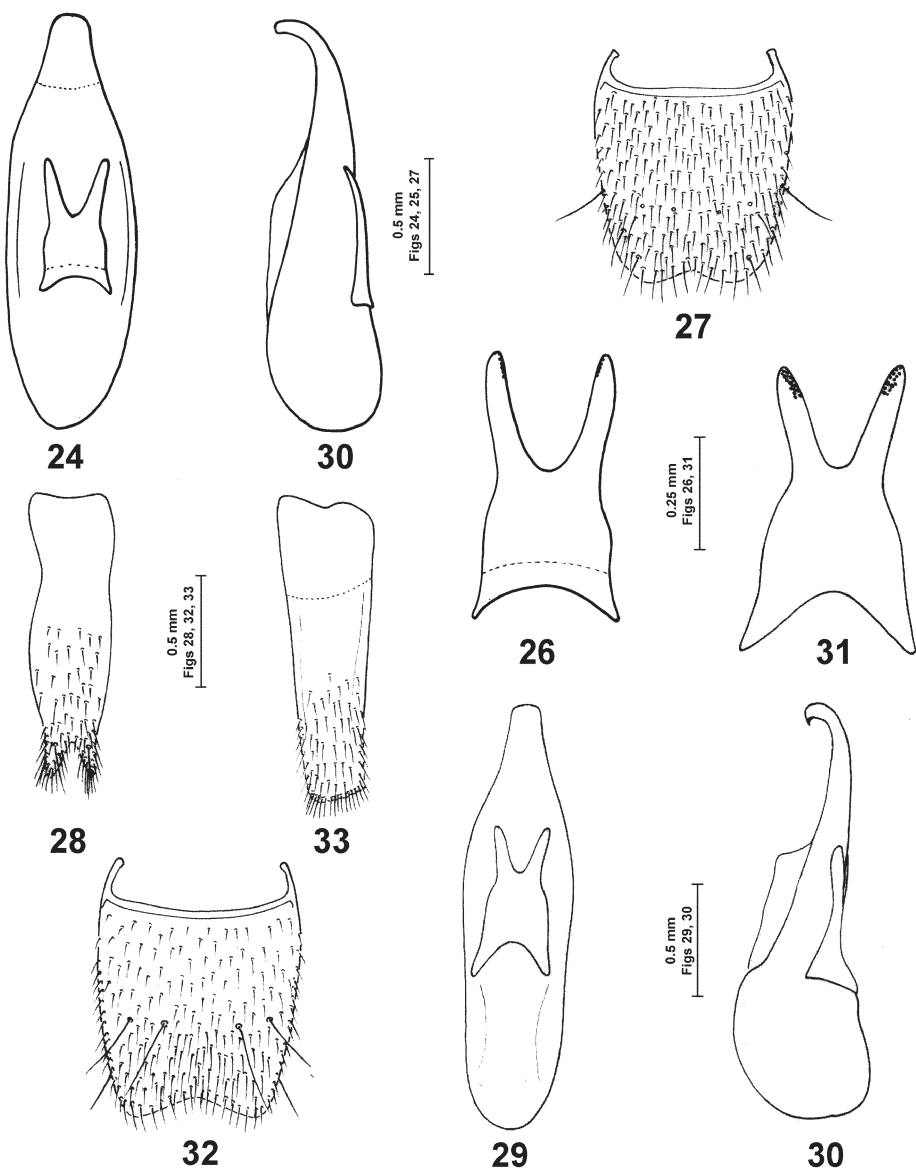
L + R	number of specimens	L + R	number of specimens
6 + 6	23	7 + 7	61
6 + 7	20	7 + 8	6
6 + 8	3	8 + 6	2
7 + 5	2	8 + 7	5
7 + 6	18	9 + 6	1

Scutellum very densely and coarsely punctate, diameter of punctures equal to that of eye facets, distance between punctures minimal. Setation short and black.

Elytra somewhat longer than wide (l/w ratio = 1.88/1.76), somewhat widened posteriorly, densely and strongly punctate, punctures larger than eye facets. Surface between punctures without microsculpture. Setation yellowish brown.

First three visible abdominal tergites with two basal lines, elevated area between the lines densely punctate. Punctuation of basal portion of tergites very fine and very dense, punctures smaller than eye facets, gradually sparser towards apex of each tergite and in general towards end of abdomen. Setation testaceous piceous. Surface without microsculpture.

Legs: metatarsus somewhat shorter than metatibia (length of tarsus/length of tibiae ratio = 1.12/1.16), metatarsomere 1 as long as metatarsomeres 2 and 3 combined, metatarsomere 5 as long as metatarsomeres 2-4 combined.



Figs 24–33. 24–28: *Philonthus* (s. str.) *pan* sp. n. 24 – aedeagus, ventral view, 25 – aedeagus, lateral view, 26 – paramere with sensory peg setae, ventral view, 27 – ventrite 8, ventral view, 28 – ventrite 9, ventral view. 29–33: *Philonthus* (s. str.) *papio* sp. n. 29 – aedeagus, ventral view, 30 – aedeagus, lateral view, 31 – paramere with sensory peg setae, ventral view, 32 – ventrite 8, ventral view, 33 – ventrite 9, ventral view.

Obr. 24–33. 24–28: *Philonthus* (s. str.) *pan* sp. n. 24 – aedeagus, ventrální pohled, 25 – aedeagus, laterální pohled, 26 – paramera, ventrální pohled, 27 – ventrit 8, ventrální pohled, 28 – ventrit 9, ventrální pohled, 29–33: *Philonthus* (s. str.) *papio* sp. n. 29 – aedeagus, ventrální pohled, 30 – aedeagus, laterální pohled, 31 – paramera, ventrální pohled, 32 – ventrit 8, ventrální pohled, 33 – ventrit 9, ventrální pohled.

Male. Protarsomeres 1-3 strongly dilated, sub-bilobed, each densely covered with modified pale setae ventrally, protarsomere 4 narrower than the preceding ones. Ventrite 8 (Fig. 27), ventrite 9 (Fig. 28), aedeagus (Figs 24-26).

Differential diagnosis. *Philonthus pan* sp. n. can be differentiated from *P. camelus* sp. n. by having the head very slightly narrowed towards the neck and from *P. psittacus* sp. n. by the narrower elytra, coarse and denser punctation of the scutellum, and the more iridescent abdomen. It differs from all members of this subgroup in the shape of the aedeagus.

Distribution. Angola, Botswana, Malawi, Namibia, Republic of South Africa, Swaziland, Zambia, and Zimbabwe.

Name derivation. The name of this species is a noun used in apposition. It is the Latin generic name of African chimpanzee (*Pan troglodytes* Blumenbach, 1758).

***Philonthus* (s. str.) *papio* sp. n.**
(Figs 29-33)

Type material. **Holotype** ♂, labelled: **Republic of Guinea**, Sérédoux, lux, 7.-8.1975, leg. Zott (red label, printed) (MNHUB). **Paratypes:** 143 spec., same data as in holotype (red labels, printed) (MNHUB, CHP).

Description. Body length 9.8-10.7 mm with stretched abdomen, length of forebody (to the end of elytra) 4.9-5.1 mm. Head black, pronotum and abdomen blackish brown, elytra dark brown with suture and posterior margin reddish brown, maxillary and labial palpi yellowish brown, antennae dark brown with first two antennomeres and legs testaceo-brunneous.

Head slightly longer than wide (l/w ratio = 1.36/1.16), eyes slightly convex and somewhat shorter than temples (length of eye/length of temple = 0.50/0.52). Posterior angles obtusely rounded, between anterior and posterior interocular punctures with two or three smaller punctures, distance between medial and interocular punctures four times distance between medial and interocular puncture. Temporal area with moderately coarse punctures. Posterior margin of eyes with several punctures. Posterior angles noticeably obtuse. Dorsal surface with very delicate microsculpture consisting of transverse waves, shiny.

Antennae rather long, antennomere 3 slightly longer than antennomere 2, the following antennomeres longer than wide, gradually shorter, with penultimate antennomere slightly longer than wide at apex, terminal antennomere distinctly shorter than two preceding antennomeres combined.

Pronotum distinctly longer than wide (l/w ratio = 1.52/1.36), almost parallel-sided, slightly narrowed anteriorly. Each dorsal row with 5-9 punctures, each sublateral row with 2 or 3 punctures. Surface with fine microsculpture consisting of transverse and oblique waves.

Number of punctures in the dorsal rows of pronotum:

L + R	number of specimens	L + R	number of specimens
5 + 6	6	7 + 7	73
6 + 5	1	7 + 8	5
6 + 6	13	8 + 6	3
6 + 7	17	8 + 7	4
6 + 8	3	8 + 8	3
7 + 6	16	9 + 6	1

Scutellum coarsely and densely punctate, setation black.

Elytra quadrate. Sides slightly widened posteriad. Punctuation fine and dense, middle diameter of punctures equal to that of eye facets, distance between punctures is mostly as large as their diameter. Surface between punctures without microsculpture. Setation piceous.

Legs moderately long, metatarsus a little shorter than metatibia (ratio of length of tarsus/length of tibia = 1.08/1.28), metatarsomere 1 somewhat longer than metatarsomeres 2 and 3 combined, terminal metatarsomere as long as metatarsomere 1.

Abdomen with first three visible tergites with two basal lines, elevated area between the lines with punctuation similar to that of remaining tergite, all tergites coarsely punctate, becoming sparser towards apex of each tergite. Setation brownish to brownish piceous. Surface between punctures without microsculpture, shiny.

Male. Protarsomeres 1-3 strongly dilated, sub-bilobed, each densely covered with modified, long pale setae ventrally, protarsomere 4 narrow and not bilobed. Ventrite 8 (Fig. 32), ventrite 9 (Fig. 33), aedeagus (Figs 29-31).

Differential diagnosis. *Philonthus papio* sp. n. can be differentiated from all species of this subgroup by the different shape of ventrite 9 and the aedeagus.

Distribution. Republic of Guinea.

Name derivation. The name of this species, a noun in apposition, is the Latin generic name of African baboon (*Papio anubis* Fischer, 1829).

Philonthus (s. str.) *psittacus* sp. n.

(Figs 34-38)

Type material. **Holotype** ♂, labelled: ZAMBIA NC, 185km S Mwinilunga, 6.12.2004, Snížek et Tichý (CHP). **Paratypes:** 18 spec., same data as in holotype (CHP, CJR).

Description. Body length 8.8-10.3 mm with stretched abdomen, length of fore body (to the end of elytra) 4.6-5.4 mm. Head and pronotum black, elytra and abdomen brown-black, elytra along suture narrowly reddish, abdomen very slightly bluish iridescent, maxillary and labial palpi yellowish brown, mandibles dark brown, antennae black, legs brownish yellow.

Head longer than wide (l/w ratio = 32.0/29.5), parallel-sided, very slightly narrowed posteriad. Eyes in anterior half very slightly convex, somewhat shorter than temples (ratio of eye length/temple length = 0.48/0.56). Distance between medial and lateral interocular punctures about 4 times the distance between medial and lateral puncture. Posterior margin of eyes with several coarse punctures. Temporal area almost impunctate. Posterior angles with one long bristle and several shorter bristles. Surface with very fine microsculpture consisting of transverse and oblique waves.

Antennae long, almost reaching posterior margin of pronotum. Antennomere 2 slightly shorter than antennomere 3, remaining antennomeres longer than wide, gradually shorter, terminal antennomere shorter than two preceding ones combined.

Pronotum somewhat longer than wide (l/w ratio = 1.44/1.40), parallel-sided, slightly narrowed anteriorly. Sides, almost in the middle with one long black bristle. Anterior angles with several shorter black bristles. Each dorsal row with 6-8 equidistant punctures. Each sublateral row with 2 punctures. Surface with microsculpture similar to that on head.

Number of punctures in the dorsal rows of pronotum:

L + R	number of species	L + R	number of specimens
6 + 6	6	7 + 6	4
6 + 7	1	7 + 7	7
6 + 8	1		

Scutellum very finely and sparsely punctate, punctures smaller in size to eye-facets, transverse distance between punctures 1.5 times as large as their diameter. Setation longer and dark.

Elytra as wide as long, parallel-sided, slightly widened posteriad. Punctuation coarser and sparser than on scutellum, punctures as large as eye facets, transverse distance between punctures almost as large as their diameter. Surface between punctures without microsculpture. Setation grey.

Abdomen wide, from the third visible tergite slightly narrowed posteriad. First three visible tergites of abdomen with two basal lines, elevated area between the lines densely and finely punctate. Punctuation of first visible tergite similar to that on scutellum, punctuation of remaining tergites much finer and sparser, punctures smaller than eye facets, distance between punctures at base equal to the size of punctures, becoming sparser towards apex of each tergite. Surface without microsculpture. Setation similar to that on elytra.

Legs: metatibia longer than metatarsus (ratio of length of tibia/length of tarsus = 1.20/1.12). First metatarsomere as long as metatarsomeres 2 and 3 combined, terminal metatarsomere somewhat longer than preceding two ones combined.

Male. Protarsomeres 1-3 strongly dilated, sub-bilobed, each densely covered with modified, long yellowish setae ventrally, protarsomere 4 narrow and not sub-bilobed. Ventrite 8 (Fig. 37), ventrite 9 (Fig. 38), aedeagus (Figs 34-36).

Differential diagnosis. *Philonthus psittacus* sp. n. is very close to *P. pan* sp. n. It can be distinguished from the latter by its wider elytra, finer and sparser punctuation of scutellum, less iridescent abdomen, and a different shape of the aedeagus.

Distribution. Zambia.

Name derivation. The name of this species, a noun in apposition, is the Latin name of the African parrot (*Psittacus erithacus* Linnaeus, 1758).

***Philonthus* (s. str.) *ramosus* Levasseur, 1968**
(Figs 39-43)

Philonthus (s. str.) *ramosus* Levasseur, 1968: 1385.

Type material. **Holotype** ♂, labelled: Mont Cameroun, XI-1966, Muséum Paris, Cameroun, B. de Miré (oblong white label with red margins, handwritten) (CMP).

Redescription. Body length 8.0 mm with stretched abdomen, length of forebody (to the end of elytra) 4.8 mm. Head and pronotum black, elytra reddish black with somewhat paler suture, abdomen blackish brown, maxillary and labial palpi brownish testaceous, antennomeres 1 and 2 dark brown, remaining antennomeres black, legs yellowish brown, knees and tibiae slightly darker.

Head (Fig. 43) about as long as wide, parallel-sided, posterior angles rounded. Temples longer than eyes (ratio of temple length/eye length = 0.48/0.36). Distance between medial punctures about three times the distance between medial and lateral puncture. Temporal area with small coarse punctures. Surface with fine and very dense microsculpture of transverse and oblique waves.

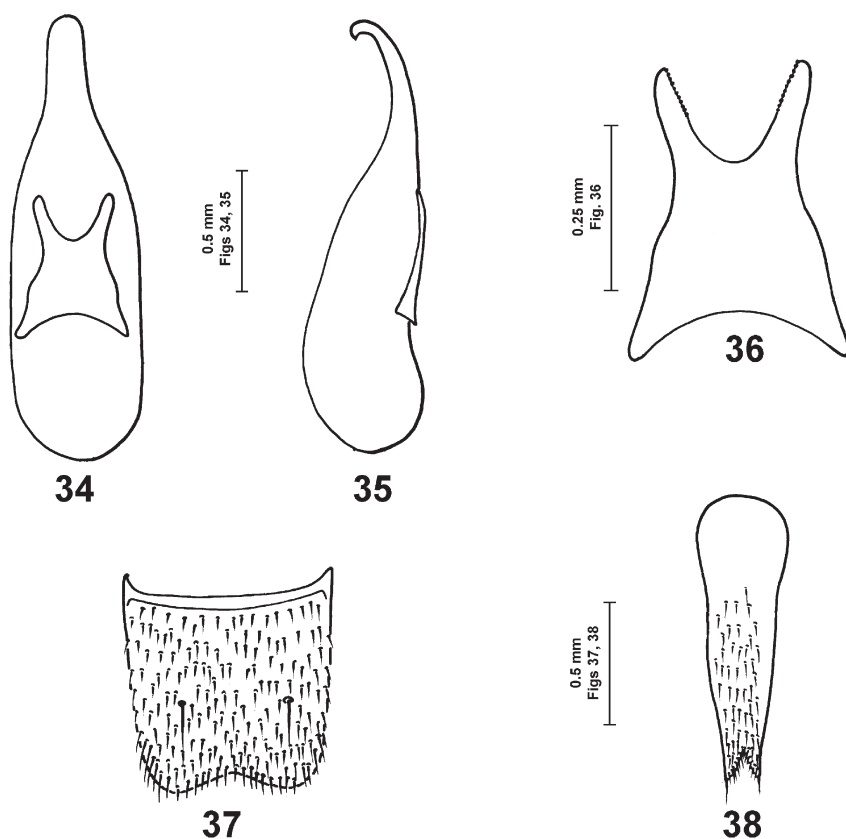
Antennae (Fig. 42) very short, antennomere 3 slightly longer than antennomere 2, antennomeres 4 and 5 slightly longer than wide, antennomeres 6-10 somewhat longer than wide, terminal antennomere distinctly shorter than two preceding ones combined.

Pronotum longer than wide (l/w ratio = 1.20/1.12), distinctly narrowed towards the apex. Left dorsal row with 7 punctures, right dorsal row with 5 punctures, each sublateral row with 3 punctures. Microsculpture similar to that on head.

Scutellum coarsely punctate, setation brown.

Elytra distinctly wider than long (l/w ratio = 1.12/1.20), slightly widened posteriad, very coarsely and densely punctate, here and there coalescence, punctures somewhat larger than eye facets, distance between punctures smaller than their diameter. Surface without microsculpture, in places with microscopical dots. Setation testaceous.

Abdomen with first three visible tergites with two basal lines, elevated area between basal lines finely and densely punctate. Punctuation of tergite 3 (first visible) similar to that on elytra, gradually becoming sparser towards the apex of each tergite, tergite 8 only very sparsely punctate. Surface between punctures without microsculpture. Setation testaceous.



Figs 34–38: *Philonthus* (s. str.) *psittaceus* sp. n. 34 – aedeagus, ventral view, 35 – aedeagus, lateral view, 36 – paramere with sensory peg setae, ventral view, 37 – ventrite 8, ventral view, 38 – ventrite 9, ventral view.

Obr. 34–38: *Philonthus* (s. str.) *psittacus* sp. n. 34 – aedeagus, ventrální pohled, 35 – aedeagus, laterální pohled, 36 – paramera, ventrální pohled, 37 – ventrit 8, ventrální pohled, 38 – ventrit 9, ventrální pohled.

Legs: metatarsus somewhat shorter than metatibia (ratio of length of tarsus/length of tibia = 0.88/0.96), metatarsomere 1 as long as metatarsomeres 2 and 3 combined, terminal metatarsomere as long as two preceding ones combined.

Male. Protarsomeres 1-3 strongly dilated, sub-bilobed, each densely covered with modified pale setae ventrally, protarsomere 4 distinctly narrower than preceding ones. Ventrite 9 in holotype destroyed, aedeagus (Figs 39-41).

Differential diagnosis. *Philonthus ramosus* can be distinguished from *P. musurus* by the shorter antennae and elytra and from all members of this subgroup by the shorter antennae and a different shape of the aedeagus.

Distribution. Cameroon.

Subgroup 3

Key to species

- 1 Head longer than wide (l/w ratio = 1.24/1.08). *P. tumulinus*
- Head as long as wide. 2
- 2 Eyes longer than temples (ratio of eye length/temple length = 0.52/0.44). *P. xerus* sp. n.
- Eyes shorter than temples (ratio of eye length/temple length = 0.44/0.56). *P. bulbifer*

Philonthus (s. str.) *bulbifer* Tottenham, 1956.

(Figs 44-48)

Philonthus (s. str.) *bulbifer* Tottenham, 1956: 242.

Type material. **Holotype** ♂, labelled: Cape Colony: Simon's Town, iv.-vi. 1915, British Museum (Nat. Hist.) Cameron collection, Bequest, B.M. 1955-147 (round label with red margins, handwritten) (NMHL). **Paratype:** 1 spec., S. Africa, Cape province: Ceres, 1500 ft., Januar 1921, R.E. Turner, Brit. Mus. 1921-78 (round label with yellow margins, handwritten) (NHML).

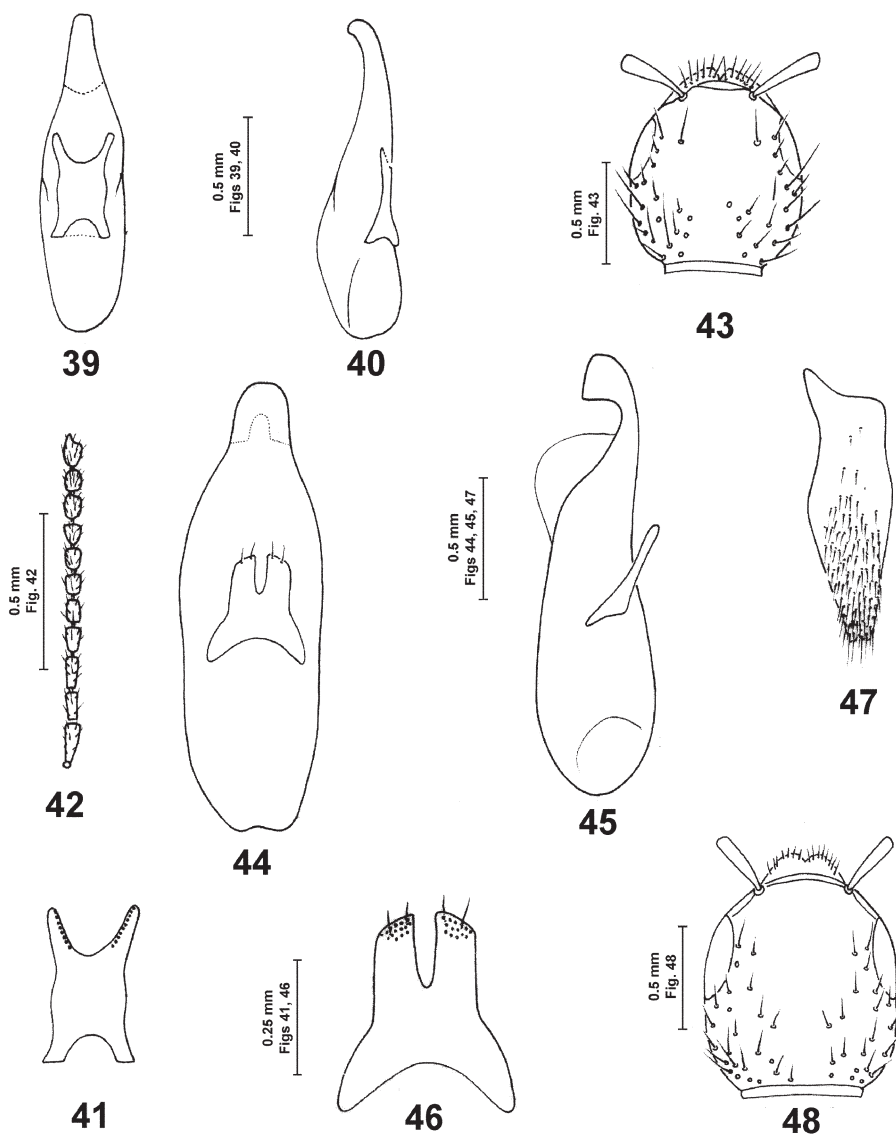
Redescription. Body length 10.3-10.7 mm with stretched abdomen, length of fore body (to the end of elytra) 4.8-5.1 mm.

Black, abdomen markedly bluish iridescent, maxillary and labial palpi blackish brown, antennae black, base of antennomere 2, femora and tarsi brownish yellow, tibiae blackish brown.

Head (Fig. 48) quadrate, as long as wide, almost parallel-sided. Posterior angles obtuse rounded. Eyes shorter than temples (ratio of eye length/temple length = 0.44/0.56), distance separating medial punctures is approximately 3.5 times the separation of the medial puncture from lateral puncture. Temporal area with a few fine punctures. Surface with very fine microsculpture consisting of transverse waves and numerous microscopic dots.

Antennae relatively long, reaching end of pronotum, antennomere 3 a little longer than antennomere 2, antennomeres 4-8 longer than wide, antennomeres 9-10 as long as wide, terminal antennomere distinctly longer than antennomere 10.

Pronotum longer than wide (l/w ratio = 1.48/1.40), parallel-sided, slightly narrowed anteriorly. Each dorsal row with 6 punctures, each sublateral row with 3 punctures. Surface with microsculpture similar to that on head, shiny.



Figs 39–48. 39–43: *Philonthus* (s. str.) *ramosus*. 39 – aedeagus, ventral view, 40 – aedeagus, lateral view, 41 – paramere with sensory peg setae, ventral view, 42 – antennae, 43 – head, dorsal view. 44–48: *Philonthus* (s. str.) *bulbifer*. 44 – aedeagus, ventral view, 45 – aedeagus, lateral view, 46 – paramere with sensory peg setae, ventral view, 47 – ventrite 9, ventral view, 48 – head, dorsal view.

Obr. 39–48. 39–43: *Philonthus* (s. str.) *ramosus*. 39 – aedeagus, ventrální pohled, 40 – aedeagus – laterální pohled, 41 – paramera, ventrální pohled, 42 – tykadla, 43 – hlava, dorsální pohled. 44–48: *Philonthus* (s. str.) *bulbifer*. 44 – aedeagus, ventrální pohled, 45 – aedeagus, laterální pohled, 46 – paramera, ventrální pohled, 47 – ventrite 9, ventrální pohled, 48 – hlava, dorsální pohled.

Scutellum densely punctate. Surface without microsculpture. Setation short, brownish yellow.

Elytra somewhat longer than wide (l/w ratio = 1.84/1.80), very slightly widened posteriad. Punctuation fine and dense, punctures somewhat larger than eye facets, distance between punctures a little more than their diameter. Surface without microsculpture. Anterior angles with one long, black bristle. Setation yellowish brown.

Abdomen from the sixth tergite slightly narrowed towards the apex. First three visible tergites with two basal lines, elevated area between the lines densely punctate. Punctuation finer and denser than on elytra, punctures as large as eye facets. Surface without microsculpture, shiny.

Legs: metatibia a little longer than metatarsus (ratio of length of tibia/length of tarsus = 1.08/0.96), metatarsomere 1 as long as metatarsomeres 2 and 3 combined, metatarsomere 5 a little longer than two preceding ones combined.

Male. Protarsomeres 1-3 strongly dilated, sub-bilobed, each densely covered with modified pale setae ventrally, protarsomere 4 distinctly narrower than the preceding ones. Ventricle 9 (Fig. 47), aedeagus (Figs 44-46).

Differential diagnosis. In habitus *P. bulbifer* is similar to *P. tumulinus*, from which it can be differentiated by a different shape of the apex of median lobe in lateral view (Figs 45-50). From *P. xerus* sp. n. it differs in a shorter eye and different shape of the apex of median lobe in lateral view (Figs 45-55).

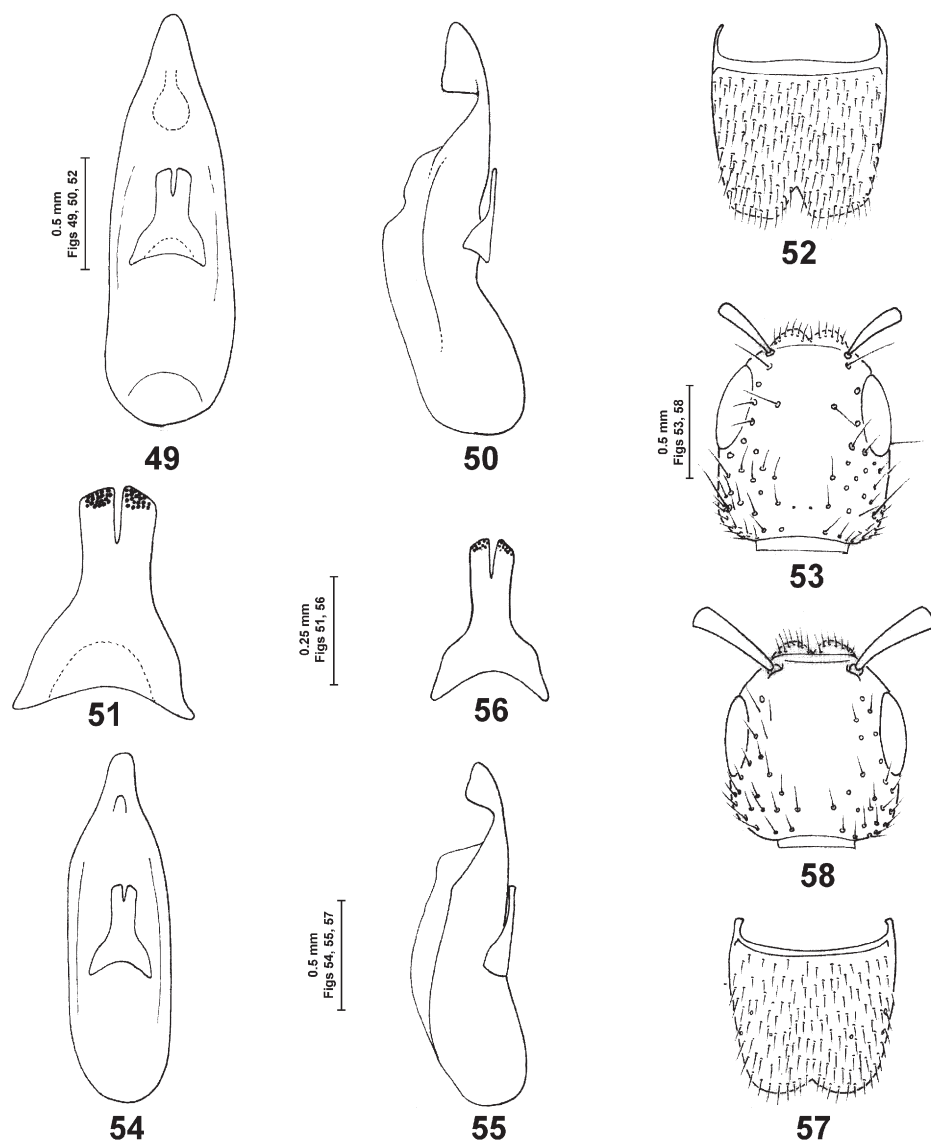
Distribution. Republic of South Africa.

***Philonthus* (s. str.) *tumulinus* Tottenham, 1955**
(Figs 49-53)

Philonthus (s. str.) *tumulinus* Tottenham, 1955: 172.

Type material. Paratypes: 1 ♀, labelled: **Cape Colony**, Grahamstown, ix.1947, M. Schmidt, C.E. Tottenham collection B.M. 1974-587. (NMHL); 3 ♂, **Nigeria**, Potiskum, V.F. Eastop, 25.x.1956, C.E. Tottenham collection B.M. 1974-587 (NMHL); 1 ♂, **Nigeria**, Zaira, V.F. Eastop, 23.ix.1956, C.E. Tottenham collection B.M. 1974-587 (NMHL); 1 ♂, **Uganda**, Nakiwogo Entebbe, xi.1961, A.J.Haddow, Light 4000 ft. C.E. Tottenham collection B.M. 1974-587 (NMHL); 1 ♂ 1 ♀, N.W. Rhodesia, Namwazi, 7.vi.1914, H.C. Dollman, H.C. Dollman coll. (NMHL). (All paratypes labelled with handwritten, round white labels with yellow margins).

Additional material examined (415 spec.). **ANGOLA:** 19 spec., Rocadas, R. Cunene, 19.-22.ii.1972 (NMHL); 4 spec., 3 mls. N. Santa Clara, 30.iii.-1.iv.1972 (NMHL); **BOTSWANA:** 76 spec., Kasane, Chobe Safari Lodge, 17°48'32"S/25°08'39"E, 26.xi.1993, lux, M. Uhlig leg. (MNHUB); **ETHIOPIA:** 3 spec., Shoa Beside Gibbie River, 3700 m, vii.1971 (FMNH); 2 spec., Shoa Awash Park, 08572N 3957E, 1000 m, B.M. 1973-450 R.O.S., Clark leg. (FMNH); **MADAGASCAR:** 5 spec., Est, Ambatombe pr. Andilamena, 17.i.1995, lux, G. Dunay + J. Janák leg. (CJR); 8 spec., Mahajanga distr., Mahajanga env., 1.-10.xii.1996 (CJR); 1 spec., Tsaratanana Antirasira-Moravato env., 24.-30.ii.2001, J. Andreeva + V. Dolin leg. (CJR); 4 spec., Cent. Plat., Andasibe, Perinet, 19.-31.xii.2001, V. Dolin + J. Andreeva leg. (CJR); 1 spec., 15-30 km S of Toliara, 23.-27.xi.2001, V. Dolin + J. Andreeva leg. (CJR);



Figs 49–58. 49–53: *Philonthus* (s. str.) *tumulinus*. 49 – aedeagus, ventral view, 50 – aedeagus, lateral view, 51 – paramere with sensory peg setae, ventral view, 52 – ventrite 8, ventral view, 53 – head, dorsal view. 54–58: *Philonthus* (s. str.) *xerus* sp. n. 54 – aedeagus, ventral view, 55 – aedeagus, lateral view, 56 – paramere with sensory peg setae, ventral view, 57 – ventrite 8, ventral view, 58 – head, dorsal view.

Obr. 49–58. 49–53: *Philonthus* (s. str.) *tumulinus*. 49 – aedeagus, ventrální pohled, 50 – aedeagus, laterální pohled, 51 – paramera, ventrální pohled, 52 – ventrit 8, 53 – hlava, dorsální pohled. 54–58: *Philonthus* (s. str.) *xerus* sp. n. 54 – aedeagus, ventrální pohled, 55 – aedeagus, laterální pohled, 56 – paramera, ventrální pohled, 57 – ventrit 8, ventrální pohled, 58 – hlava, dorsální pohled.

1 spec., Nosy Be, 10.iii.1993, V. Dolin + J. Andreeva leg. (CJR); 1 spec., 15-30 km S of Toliara, 23.-27.xi.1995, Jiří Moravec leg. (CJR); 50 spec., Est, Sambava, Riv. Anovona env., 0-20 m, 3.iii.1996, lux, J. Janák + P. Moravec leg. (CJR); 36 spec., Nord, Masiv Anjanaharibe, Nord, sentier Ambodiharina-Ambalarombe, Riv. Andramontana env., 500-600 m, 23.-1.iii.1996 (CJR); 1 spec., East Fenerive, 26.xii.1998, Jiří Moravec leg. (CJR); 33 spec., Mahajanga prov., Mahajamba riv., Ampatika env., 10.-12.xii.1996 (CJR); 9 spec., Antsiranana prov., Ankarana, Ambondromifehy, 5.-6.xii.1996, J. Jeniš leg. (CJR); 12 spec., Sambirano riv., Marovato, vii.2001, J. Rolčík leg. (CJR); **MALAWI**: 1 spec., Sani env., Sani Brach, 13°02'S/34°20'E, 490 m, 24.-26.viii.2001, lux, V. Göllner leg. (MNHUB); **NAMIBIA**: 20 spec., E. Caprivi: 30 km SE Katima Mulilo, 17°31'S/24°25'E, Zambezi-Altwaterarm, lux, 6.iii.1992, M. Uhlig leg. (MNHUB); 2 spec., Kafue-River, Rimo Marine Motel, 18°13'S/21°45'E, 24.xi.1993, lux, M. Uhlig leg. (MNHUB); 3 spec., Kavango: Popa Falls, 18°07'S/21°35'E, 26.ii.-3.iii.1992, lux, M. Uhlig leg. (MNHUB); 2 spec., Rundu, 17°56'S/49°E, lux, 18.-19.iv.1993, B. + M. Uhlig leg. (MNHUB); 1 spec., Etosha, NP Namutoni, 18°48'S/16°56'E, 14.-15.ii.1993, lux, J. Deckert leg. (MNHUB); **REPUBLIC OF SOUTH AFRICA**: 3 spec., Northern Province, Zouthpansberg, Medike, 22°59'S/29°37'E, lux, 5.iv.2000, J. Deckert leg. (MNHUB); 1 spec., Transvaal: Tschipise, 22°37'S/30°10'E, 24.-25.xi.1966, E. Arndt leg. (MNHUB).

Redescription. Body length 9.8–10.2 mm with stretched abdomen, length of fore body (to the end of elytra) 4.9–5.1 mm. Head black, pronotum and elytra brownish black with suture and posterior margin very narrowly reddish brown, abdomen brownish black and slightly iridescent, maxillary and labial palpi brown, base of first three antennomeres paler, remaining antennomeres dark brown, legs testaceous.

Head (Fig. 53) longer than wide (l/w ratio = 1.24/1.08), parallel-sided. Posterior angles slightly obtusely rounded. Eyes slightly shorter than temples (ratio of eye length/temple length = 0.52/0.60). Approximate distance separating medial punctures about four times that separating medial puncture from lateral puncture. Temporal area with a few punctures, surface with very fine, moderately dense microsculpture consisting of transverse oblique waves.

Antennae moderately long, antennomere 3 slightly longer than antennomere 2, antennomeres 4-10 longer than wide, terminal antennomere distinctly shorter than two preceding ones combined.

Pronotum longer than wide (l/w ratio = 1.44/1.36), parallel-sided, slightly narrowed anteriorly. Each dorsal row with 5-9 punctures, each sublateral row with 2 or 3 punctures. Microsculpture similar to that on head.

Number of punctures in the dorsal rows of pronotum:

L + P	number of specimens	L + P	number of specimens
5 + 5	2	7 + 6	51
5 + 6	9	7 + 7	92
6 + 5	7	7 + 8	19
6 + 6	159	8 + 6	11
6 + 7	46	8 + 7	9
6 + 8	6	9 + 9	1
7 + 5	2		

Scutellum densely and finely punctate. Setation short and black.

Elytra longer than wide (l/w ratio = 1.88/1.76), very slightly widened posteriad. Punctures as large as eye facets, transverse distance between punctures almost as large as their diameter. Setation testaceous. Surface without visible microsculpture.

First three visible tergites of abdomen with two basal lines, punctuation of elevated area between the lines fine and relatively dense. Punctuation of tergites finer and denser than on elytra, becoming slightly sparser towards the apex of each tergite. Surface without visible microsculpture. Setation short and testaceous.

Legs: metatarsus a little shorter than metatibia (ratio of length of tarsus/length of tibia = 1.04/1.16), metatarsomere 1 somewhat longer than metatarsomeres 2 and 3 combined, terminal metatarsomere as long as metatarsomeres 3 and 4 combined.

Male. Protarsomeres 1-3 strongly dilated, sub-bilobed, each densely covered with modified long yellow setae ventrally, protarsomere 4 narrower than the preceding ones, not sub-bilobed. Ventrite 8 (Fig. 52), aedeagus (Figs 49-51).

Differential diagnosis. *Philonthus tumulinus* is similar to *P. bulbifer*, from which it can be distinguished by a different shape of the apex of the median lobe in lateral view (Figs 50-45). From *P. xerus* sp. n. it differs in shorter eyes and a different shape of the apex of median lobe in lateral view (Figs 50-55).

Distribution. Botswana, Madagascar, Malawi, Namibia, Republic of South Africa, Senegal, Zambia, and Zimbabwe.

Philonthus (s. str.) *xerus* sp. n.

(Figs 54-58)

Type material. **Holotype** ♂, labelled: SUDAN, 22.08.1966, Khartoum (373), Dr. P. Štys leg. (red label, print) (CHP); **Paratypes**: 5 spec., same data as in holotype (red label, printed) (CHP).

Additional material studied. (16 specimens): SUDAN: 1 spec., Upper Nile, 5.-20.i.1963, Linnavuori leg. (ZMUH); 13 spec., Upper Nile, Malakal, 20.1.1963, Linnavuori leg. (ZMUH); 1 spec., Blue Nile, Wad Medani, 11.-14.1962, Linnavuori leg. (ZMUH); 1 spec., Khartoum, Dr. V. Seichert leg. (CSB).

Description. Body length 8.7-9.2 mm with stretched abdomen, length of fore body (to the end of elytra) 4.2-4.5 mm. Head black, pronotum blackish brown, elytra brownish black with suture and posterior margin narrowly brownish red, abdomen blackish brown with reddish and metallic blue iridescence, maxillary and labial palpi yellowish brown, antennae dark brown, first antennomere and legs yellowish brown.

Head (Fig. 58) only somewhat longer than wide (l/w ratio = 1.08/1.06), slightly narrowed behind eyes, posterior angles entirely rounded, with one long black bristle. Eyes longer than temples (ratio of eye length/temple length = 0.52/0.44). Distance between medial punctures four times the distance between the medial and interocular puncture. Temporal area finely punctate. Surface with very fine microsculpture consisting of transverse and oblique waves.

Antennae long, reaching end of pronotum, antennomere 3 slightly longer than antennomere 2, following antennomeres longer than wide, terminal antennomere shorter than two preceding ones combined.

Pronotum slightly longer than wide (l/w ratio = 1.36:1.28), parallel-sided, posterior angles strongly rounded. Each dorsal row with 5-8 punctures, each sublateral row with 2 or 3 punctures. Surface with microsculpture similar to that on head.

Number of punctures in the dorsal rows of pronotum:

L + R	number of specimens	L + R	number of specimens
5 + 5	1	7 + 6	5
6 + 6	2	7 + 7	6
6 + 7	4	8 + 7	1
7 + 5	3		

Scutellum coarsely and densely punctate, punctures somewhat larger than eye facets, distance between punctures minimal. Surface without microsculpture. Setation dark.

Elytra somewhat wider than long (l/w ratio = 1.72/1.76), slightly widened posteriad. Punctuation somewhat coarser than on scutellum. Surface without microsculpture. Setation brownish yellow.

Abdomen elongated, more or less parallel-sided, base of tergites with punctuation denser and finer than that on elytra, distinctly sparser towards the apex of each tergite. Surface between punctures without microsculpture. Setation brownish yellow.

Legs: metatibia somewhat longer than metatarsus (ratio of length of tibia/length of tarsus = 1.00/0.96), metatarsomere 1 a little longer than metatarsomeres 2 and 3 combined, terminal metatarsomere a little longer than two preceding ones combined.

Male. Protarsomeres 1-3 strongly dilated, sub-bilobed, each densely covered with modified pale setae ventrally, protarsomere 4 as wide as apex of tibia. Ventrite 8 (Fig. 57), aedeagus (Figs 54-56).

Differential diagnosis. *Philonthus xerus* sp. n. is very similar in habitus to *P. tumulinus*, from which it can be differentiated by longer eyes and a different shape of the apex of median lobe in lateral view (Figs 50-55).

Distribution. Sudan.

Name derivation. The name of this species, a noun in apposition, is the Latin generic name of the African squirrel *Xerus inauris* (Zimmerman, 1780).

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SOUHRN

V této práci jsou revidovány druhy ze skupiny *Philonthus* (s. str.) *turbidus* Erichson, 1840, která zahrnuje 11 afrotropických druhů, z toho 5 nových. Druhy této skupiny jsou středně velké od 8,0 mm do 12,2 mm. Zbarvení je černé až hnědo černé. Dorsální řady štítu obsahují 5-9 teček, přičemž počet teček u jednoho exempláře v levé a pravé dorsální řadě často nebývá stejný. První 3 články předních chodidel samců jsou silně rozšířené a laločnaté, na spodní straně žlutě ochlupené, 4. článek je zřetelně užší než předcházející, u samic jsou tyto články mnohem užší. První tři viditelné tergity zadečku mají dvě basální linie a mezera mezi těmito liniemi je rozdílně tečkovaná, někdy úplně bez tečkování. I když jsem viděl skoro 1400 kusů z této skupiny, nenašel jsem žádný spolehlivý znak pro určení samic. Tento problém přede mnou řešil již Tottenham (1961), který došel ke stejnému závěru.

Klíč k určení podskupin skupiny *P. turbidus* Erichson, 1840

- 1 Vrchol penisu z postranního pohledu pravoúhle zahnutý a prodloužený, ramena rozdělená paramery jsou ve tvaru V, sety jsou rozmístěné po celé délce vnitřního okraje paramery. **1. podskupina**
- Vrchol penisu z postranního pohledu pouze slabě zahnutý, paramera menší, ramena ve tvaru V nebo U, sety jsou pouze v přední polovině vnitřního okraje paramery, pouze u *P. ramosus* jsou sety po celé délce vnitřního okraje. **2. podskupina**
- Vrchol penisu z postranního pohledu rozšířený, cibulovitý, ramena paramery malá a krátká, úzce od sebe rozdělená. **3. podskupina**

1. podskupina

Klíč druhů

- 1 Tečkování krovek řidší, tečkování štítu jemné, ramena paramery velmi krátká. *P. styxi*
- Tečkování krovek hustší, tečkování štítu hrubší, ramena paramery velmi dlouhá. *P. turbidus*

2. podskupina

Klíč druhů

- 1 Ramena paramery ve tvaru V. 2
- Ramena paramery ve tvaru U. 3
- 2 Vrchol 9. sternitu rovný, bez vykrojení. *P. papio* sp. n.
- Vrchol 9. sternitu uprostřed s vykrojením. *P. pan* sp. n.
- 3 Hlava se za očima směrem ke krku silně zužuje. *P. camelus* sp. n.
- Hlava se za očima směrem ke krku velmi slabě zužuje. 4
- 4 Tykadla velmi krátká, dosahují pouze do poloviny délky štítu. *P. ramosus*
- Tykadla dlouhá, dosahují k zadnímu okraji štítu. 5
- 5 Vrchol penisu z postranního pohledu s malým zoubkem a silněji zahnutý. *P. psittacus* sp. n.
- Vrchol penisu z postranního pohledu bez malého zoubku a je téměř rovný. *P. musurus*

3. podskupina

Klíč druhů

- 1 Hlava delší než široká (poměr délky a šířky je 1.24/1.08). *P. tumulinus*
- Hlava tak dlouhá jako široká. 2
- 2 Oči o málo delší než spánky (poměr délka očí/délka spánků = 0.52/0.44). *P. xerus* sp. n.
- Oči kratší než spánky (poměr délka očí/délka spánků = 0.52/0.60). *P. bulbifer*