

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

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Abstract. The *Philonthus aemulus* species group of the genus *Philonthus* Stephens, 1829, containing sixteen species, is proposed. Four species are described as new: *Philonthus bezdeki* sp. nov. (Malawi), *Philonthus fanynkae* sp. nov. (Nigeria), *P. macronyx* sp. nov. (Democratic Republic of the Congo) and *P. soricinus* sp. nov. (Gabon), and eleven species are redescribed: *P. aemulus* Tottenham, 1939 (Central African Republic, Democratic Republic of the Congo, Namibia, Senegal, Tanzania), *P. balbus* Tottenham, 1955 (Cameroon), *P. cantonneti* Levasseur, 1962 (Democratic Republic of the Congo), *P. dionysiae* Levasseur, 1962 (Democratic Republic of the Congo), *P. irritans* Tottenham, 1953, (Zimbabwe), *P. jarrigei* Levasseur, 1962, (Democratic Republic of the Congo), *P. lualabaensis* Levasseur, 1956 (Democratic Republic of the Congo), *P. lucanicornis* Bernhauer, 1908, (Gabon), *P. ocyroides* Schubert, 1911 (Tanzania, Senegal), *P. salti* Tottenham, 1953 (Uganda, Central African Republic, Democratic Republic of the Congo, Cameroon) and *P. tabius* Tottenham, 1955 (South Africa). New synonym: *Philonthus ardoini* Levasseur, 1966, is placed in synonymy with *Nephronthus grandis* Bernhauer, 1932. The external male genitalia and significant morphological characters of all species are figured.

Taxonomy, new species, new synonymy, key, Coleoptera, Staphylinidae, Staphylinini, Philonthina, *Philonthus aemulus* species group, Afrotropical region

INTRODUCTION

On examining the extensive material of the Afrotropical *Philonthus* Stephens, 1829, in the collections of the Natural History Museum, London, (United Kingdom), Institut royal des Sciences naturelles de Belgique, Bruxelles, (Belgium), Field Museum of Natural History, Chicago (USA), Musee Royal de l’Afrique centrale, Tervuren (Belgium), and of J. Bezděk, four new species belonging to the *P. aemulus* species-group were found and are defined in the present paper. The genus *Philonthus* Stephens 1829, belongs to the tribe Staphylinini and is the largest genus in the subtribe Philonthina, occurs in all zoogeographical regions with more than 1250 species, more than 300 of which are described from the Afrotropical region. Members of this genus are predators of tiny insects and their larvae. They live in rotting vegetable material, animal corpses, manure and moss. Many species are typical inhabitants of riversides, some live exclusively in nests of birds and small underground mammals, some are found only on mountains, in still water and salt marshes.

For description and diagnosis see detailed characterization in Smetana (1995).

MATERIAL AND METHODS

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

LHPC – Lubomír Hromádka, collection, Praha, Czech Republic;

FMNH – Field Museum of Natural History, Chicago, USA (James Boone);

IRSB – Institut royal des Sciences naturelles de Belgique, Bruxelles, Belgium (Didier Drugmand);

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

MNHN – Muséum national d’Histoire naturelle, Paris, France (Théodore Deuve and Azedah Taghavian);
MRAT – Musée Royal de l’Afrique centrale, Tervuren, Belgium (Marc de Meyer);
ZMHB – Museum für Naturkunde der Humboldt-Universität, Berlin, Germany (Manfred Uhlig).

A double slash (//) is used to divide information from separate labels on type specimen. All measurements were made on beetles with extended abdomens. All ratios mentioned in the descriptions are dimensionless but can be converted to lengths as 20 units = 1 mm. When indicating the relative lengths of antennal and tarsal segments, which are all equal in length, the following form of abbreviation is used (e.g., 2–4 = 5 means that each of segments 2, 3 and 4 is of the same length, 5 units).

RESULTS

P. aemulus species group is proposed here as a group of Afrotropical species that are: moderately large to large species, 10.3–15.7 mm long, with head black or black-brown, pronotum orange-red to brown-red, elytra from red-brown to brown-yellow, mostly with dense and simple punctation, antennomeres normal or serrate, eyes relatively large and sometimes a little convex, dorsal rows with variable numbers of punctures from two to nine, sublateral rows with from one to four punctures, first three visible abdominal tergites with two basal lines, elevated area between lines punctate or impunctate.

The following sixteen Afrotropical species are included in the group:

Philonthus aemulus Tottenham, 1939: Central African Republic, Democratic Republic of the Congo, Namibia, Senegal, Tanzania;
Philonthus balbus Tottenham, 1955: Uganda, Botswana, Republic of South Africa;
Philonthus bezdeki sp. nov.: Malawi;
Philonthus cantonneti Levasseur, 1962: Democratic Republic of the Congo;
Philonthus dionysiae Levasseur, 1962: Democratic Republic of the Congo;
Philonthus fanyynkae sp. nov.: Nigeria;
Philonthus irritans Tottenham, 1953: Zimbabwe;
Philonthus jarrigei Levasseur, 1962: Democratic Republic of the Congo;
Philonthus lualabaensis Levasseur, 1966: Democratic Republic of the Congo;
Philonthus lucanicornis Bernhauer, 1908: Gabon;
Philonthus macronyx sp. nov.: Democratic Republic of the Congo;
Philonthus ocyroides Schubert, 1911: Tanzania, Senegal;
Philonthus salti Tottenham, 1953: Uganda, Democratic Republic of the Congo, Central African Republic, Cameroon;
Philonthus soricinus sp. nov.: Gabon;
Philonthus tabius Tottenham, 1955: South African Republic.

Philonthus aemulus Tottenham, 1939

(Figs 1–7)

Philonthus aemulus Tottenham, 1939: 233 (*Philonthus*: replacement name for *serraticornis* Bernhauer, 1908).

Philonthus serraticornis Bernhauer, 1908: 110 (*Philonthus* preoccupied).

Philonthus antennatus Bernhauer et Schubert, 1914: 328 (*Philonthus*: replacement name for *serraticornis* Bernhauer; preoccupied).

TYPE MATERIAL. Not studied.

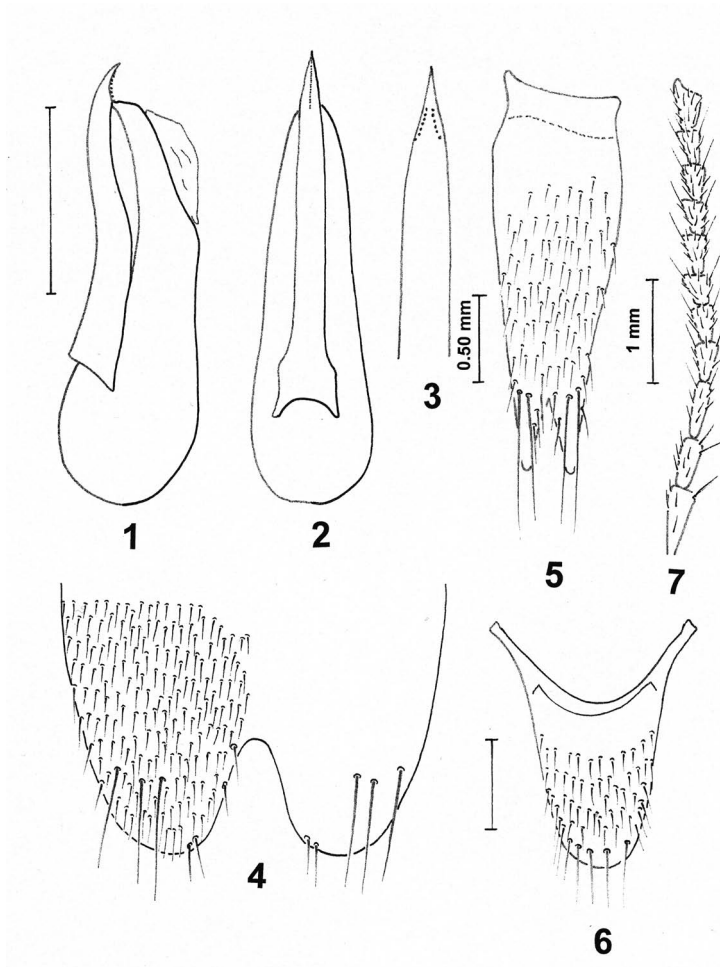
ADDITIONAL MATERIAL STUDIED. **Kenya**: ♀, Kakamega Forest N.R. Grasland, 1600m, 0.21.1N/34.51E, 26.ix.2001, (light trap) 5, leg. L. Kühne & J. Holstein (ZMHB). **Malawi**: ♂, Kahingina Forest Res. 70 km N of Kasungu, 29.xii.2001, Obořil lgt. (FMNH). **Central African Republic**: 2 ♀♀, Bozo, lumière, 21.v.1981, leg. N. Degallier (ZMHB). **Republic of South Africa**: ♂, Northern Prov., Camp David, 5 km S Ofcolaco, 475m, 17–24.i.2002, S. Kurtin leg. (LHPC); ♂, Umudike, 23–31.iii.1960, J. I. Gregory (LHPC); ♂, Natal, Sodwana Bay Nat. P., 20.xii.1992, leg., F. Koch (ZMHB);

♂, Moloto, 25.i.1999, leg. Werner (ZMHB); ♀, Kwa Zulu-Natal, St. Lucia Park, Charters Creek, 28°12'S/32°25'E, leg. F. Koch (ZMHB). **Zimbabwe:** ♀, 11.–12.xii.1993, 17°53'S/25°49'E, Victoria Falls: Zambezi-NP. Camp, lux, leg. M. Uhlig (ZMHB).

TYPE LOCALITY. Deutsch-Südafrika [= Namibia]: Otjosondu.

REDESCRIPTION. Body length: 12.4–15.1 mm, length of fore body (to the end of elytra) 6.8–7.3 mm. Head black, clypeus along anterior margin and antennal sockets very narrowly yellow-brown, labrum, maxillae, labial palpi and legs yellow-brown, mandibles black-brown, pronotum orange-yellow, elytra yellow-brown with suture dark brown, first two antennomeres and base of antennomere 3 brown-yellow, remaining antennomeres brown.

Head wider than long (ratio 51:42), posterior angles strongly rounded, eyes convex, longer than wide (ratio 21:17), between eyes four punctures, distances between punctures similar, three



Figs 1.–7. *Philonthus aemulus* Tottenham, 1939: 1 – aedeagus ventral view, 2 – aedeagus lateral view, 3 – paramere ventral view, 4 – male sternite VIII ventral view, 5 – male sternite IX ventral view, 6 – male tergite X dorsal view, 7 – antennae.

punctures along inner margin of each eye, temporal area with many coarse punctures, surface with fine eye-like microsculpture.

Antennae (Fig. 7) long, when at rest extending beyond posterior margin of pronotum by about the length of the two terminal antennomeres, antennomere 3 slightly longer than antennomere 2, antennomeres 5–10 slightly serrate, terminal antennomere slightly shorter than antennomere 2.

Pronotum wider than long (ratio 58:50), parallel-sided, posterior angles strongly rounded, each dorsal row with seven, sometimes with eight punctures, each sublateral row with two punctures. Surface with very fine and dense transverse wavy microsculpture.

Scutellum very finely punctured, diameter of punctures slightly smaller than eye-facets, surface lacks microsculpture, setation yellow-brown.

Elytra wider than long (ratio 75:69), slightly wider posteriorly, punctuation slightly coarser than that on scutellum, diameter of punctures equal to that of eye-facets, distance between punctures mostly slightly greater than their diameter, surface between punctures lacks microsculpture; setation yellow-brown.

Legs. Metatibia longer than metatarsus (ratio 46:44), metatarsomere 1 as long as metatarsomeres 2–3 combined, metatarsomere 4 slightly shorter than metatarsomere 3, terminal metatarsomere as long as metatarsomere 3.

Abdomen parallel-sided, from visible tergite III narrows slightly towards apex, punctuation on all tergites fine and relatively dense, diameter of punctures equal to that on elytra, distance between punctures slightly greater than their diameter, surface lacks microsculpture; setation yellow-brown.

Male. Protarsomeres 1–3 markedly dilated and sub-bilobed, each covered with modified pale setae ventrally. Sternite VIII (Fig. 4) with wide and very deep, obtusely rounded medio-apical emargination, sternite IX (Fig. 5), tergite X (Fig. 6) aedeagus (Figs 1–3).

Female. Protarsomeres 1–3 much less dilated than in male, each with a few modified pale stae ventrally, protarsomere 4 small.

DIFFERENTIAL DIAGNOSIS. *P. aemulus* is similar to *P. lucanicornis* Bernhauer, 1908 from which it can be differentiated by lighter antennomeres 1–2 and elytra, and the different shape of its aedeagus.

DISTRIBUTION. Namibia, Central African Republic, Democratic Republic of the Congo, Malawi, Republic of South Africa,, Senegal, Tanzania.

***Philonthus balbus* Tottenham, 1955**

(Figs 38–41)

Philonthus balbus Tottenham, 1955: 177.

TYPE MATERIAL. Not studied.

ADDITIONAL MATERIAL STUDIED. **Botswana:** 3 spec., R. Zhasne, 20 mls. NW. Francistown, 24.iv.1972, at light, Southern African Exp. B.M. 1972-1 (BMNH), 8 spec., 42 mls. W. Kalkfontein, 11.–12.iv.1972, at light, Southern African Exp. B.M. 1972-1 (BMNH). **Republic of South Africa:** 2 spec., E. Transvall, 15 km NE Klaserie, Guernsey Farm, 18.–30.xii.1985, FMHD # 85-884, woodland black lights, S. Peck, P# 85-317 (FMNH).

TYPE LOCALITY. Uganda: Kawanda.

REDESCRIPTION. Body length 10.3–14.8 mm, length of fore body (to the end of elytra) 5.0–6.9 mm. Head black, pronotum and scutellum reddish-brown, elytra slightly darker, abdomen brown, maxillary and labial palpi yellow-brown, mandibles black-brown, antennomere 1 brown-yellow, remaining antennomeres and legs brown.

Head wider than long (ratio 40–52.5:31–40), parallel-sided, clypeus with a small depression medially, posterior angles of head capsule slightly rounded, with one long black bristle. Four coarse

punctures between eyes, distance between medial interocular punctures four times that between medial and lateral punctures, medial punctures positioned slightly anteriorly. Eyes slightly smaller than temples (ratio 12–14.5:13–17), posterior margin of eyes with 2 coarse punctures, temples with many variably sized large punctures. Surface lacks microsculpture.

Antennae relatively long and stout, at rest they reach last fourth of pronotum. Antennomere 1 slightly shorter than antennomeres 2–3 combined, antennomere 2 slightly shorter than antennomere 3, antennomeres 4–5 as long as wide, antennomeres 6–10 conspicuously wider than long, antennomere 11 slightly shorter than antennomere 9–10 combined.

Pronotum wider than long (ratio 39–54:40–50), parallel-sided, anterior angles almost rectangular, conspicuously deflexed, slightly obtusely rounded, with several short bristles, posterior angles markedly rounded. Sides with several long black bristles of different lengths. Each dorsal row with 4 fine punctures, each sublateral row with one puncture, situated halfway between dorsal rows and lateral margin. Surface lacks microsculpture.

Scutellum finely punctate, punctures as large as eye-facets, separated by distances equivalent to about one and half or two puncture transverse diameters.

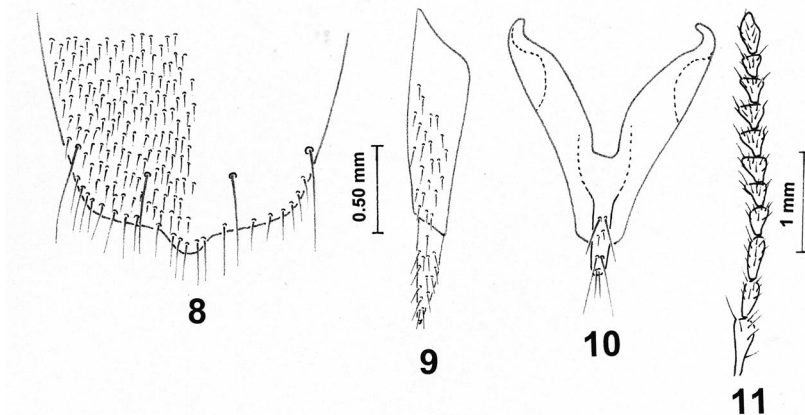
Elytra slightly longer than wide (ratio 48–60:59–63), very slightly wider posteriorly. Sides with several long black bristles. Punctuation fine and dense, diameter of punctures larger than eye-facets, separated mostly by distances of one transverse puncture diameter. Surface between punctures lacks microsculpture; setation yellowish.

Legs. Metatarsus as long as metatibia. Metatarsomere 1 longer than metatarsomere 5 and 2 longer than 3.

Abdomen wide, very gradually narrows towards apex. First three visible tergites with two basal lines, elevated area between lines finely punctate. Punctuation on tergites finer and denser than on elytra, becoming distinctly sparser towards apex of each tergite. Surface lacks microsculpture; setation similar to that on elytra.

Male. Protarsomeres 1–3 strongly dilated and sub-bilobed, each covered ventrally with modified pale setae, protarsomere 4 smaller than preceding ones. Tergite X dorsal view (Fig. 8), sternite VIII, ventral view (Fig. 9), gonocoxite of female genital segment (Fig. 10).

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



Figs 8–11. *Philonthus bezdeki* sp. nov.: 8 – female tergite X dorsal view, 9 – female sternite VIII, ventral view, 10 – gonocoxite on female genital segment, 11 – antenna.

DIFFERENTIAL DIAGNOSIS. *P. balbus* may be distinguished from *P. soricinus* sp. nov. by its larger eyes, darker antennomeres 1–3 and by the different shape of its aedeagus.

DISTRIBUTION. Uganda, Botswana, Central African Republic.

***Philonthus bezdeki* sp. nov.**

(Figs 8–11)

TYPE MATERIAL. **Holotype:** ♀, 'Malawi cent., Dedza env., 16.xii.2001, J. Bezděk, lgt. // HOLOTYPE *Philonthus bezdeki* sp. nov. L.Hromádka det., [red oblong printed label]' (LHPC).

TYPE LOCALITY. Malawi cent., Dedza env.

DESCRIPTION. Body length: 11.8 mm, length of fore body (to the end of elytra) 5.6 mm. Head brown-red with posterior corners brown-black, clypeus along posterior margin, antennal sockets and labrum yellow-brown, mandibles black-brown with darker tips, pronotum and elytra red-brown, abdomen slightly darker, golden and iridescent, mandibles black-brown, maxillary, labial palpi and antennae yellow-brown, anterior half of terminal antennomere lighter, legs brown-yellow, terminal metatarsomere of all tarsi slightly paler.

Head transverse, distinctly wider than long (ratio 43:32), slightly narrows behind eyes, posterior angles obtusely rounded, with one long dark bristle, eyes slightly projecting and much larger than temples (ratio 18:9), distance between medial interocular punctures three times that between medial and lateral interocular punctures. Temporal area with several unequally large punctures, surface with fine transverse wavy microsculpture.

Antennae (Fig. 11) long, at rest exceed the posterior margin of pronotum by the length of the terminal antennomere, antennomere 3 slightly longer than antennomere 2, antennomeres 5–9 weakly serrated, terminal antennomere as long as antennomere 2.

Pronotum wider than long (ratio 49:46), parallel-sided, narrows slightly anteriorly, several bristles of unequal length on anterior angles, posterior angles strongly rounded, each dorsal row with 4 relatively fine punctures, each sublateral row with 2 punctures, surface with very fine transverse wavy microsculpture.

Punctuation on scutellum very fine and at regular intervals, punctures slightly smaller than eye-facets, surface lacks microsculpture.

Elytra slightly wider than long (ratio 61:58), slightly wider posteriorly, punctuation fine, diameter of punctures equal to eye-facets, separated mostly by distances equivalent to the transverse diameter of two puncture, surface between punctures lacks microsculpture, shiny, sides with several longer bristles; setation yellow.

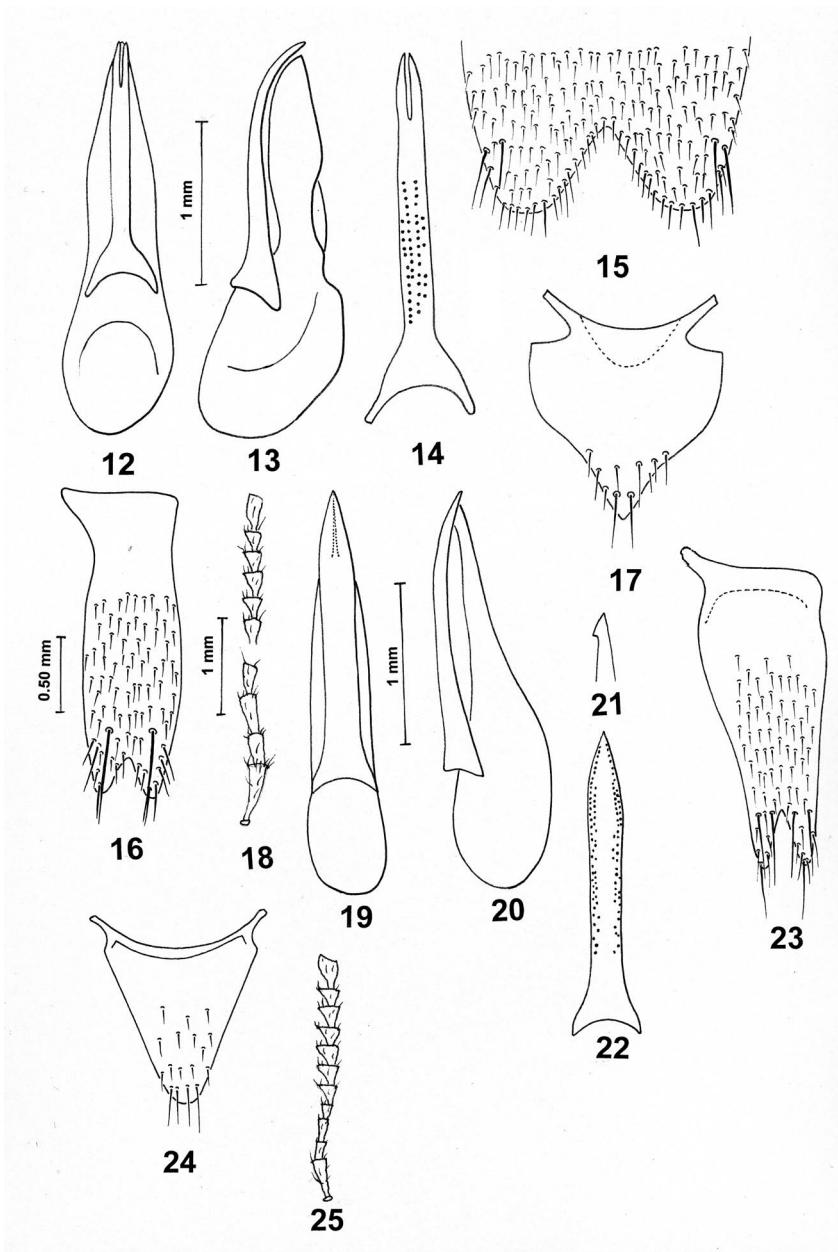
Legs. Metatibia as long as metatarsus, metatarsomere 1 slightly longer than metatarsomeres 2–3 combined, terminal metatarsomere slightly longer than metatarsomeres 3–4 combined.

Abdomen parallel-sided, narrows slightly from visible tergite III towards apex, punctuation on visible tergites slightly finer and denser than that on elytra, surface lacks microsculpture, shiny; setation yellow, paratergites with several long dark bristles.

Male. Unknown.

Female. Protarsomeres 1–3 slightly dilated and sub-bilobed, each covered ventrally with modified pale setae, protarsomere 4 much narrower than preceding ones, tergite X (Fig. 8), sternite VIII (Fig. 9), gonocoxites on female genital segment (Fig. 10).

DIFFERENTIAL DIAGNOSIS. *Philonthus bezdeki* sp. nov. is in habitus very similar to *P. fanynkae* sp. nov. from which it can be differentiated by the lighter colour of its fore-body and slightly closer punctuation on abdomen, from *P. irritans* Tottenham, 1953, by its larger eyes, lighter coloured



Figs 12–25. *Philonthus fanynkae* sp. nov.: 12 – aedeagus ventral view, 13 – aedeagus lateral view, 14 – paramere ventral view, 15 – male sternite VIII ventral view, 16 – male sternite IX ventral view, 17 – male tergite X dorsal view, 18 – antennae (antennomere 5 missing). *Philonthus irritans* Tottenham, 1950: 19 – aedeagus ventral view, 20 – aedeagus lateral view, 21 – tips of paramere lateral view, 22 – paramere, ventral view, 23 – male sternite IX, ventral view, 24 – male tergite X, dorsal view, 25 – antennae.

head and sparser punctation on elytra and abdomen and from both by the different shape of its aedeagus.

DISTRIBUTION. Malawi.

ETYMOLOGY. This new species is dedicated to Jan Bezděk, Mendel University, Brno, who collected the holotype.

***Philonthus cantonneti* Levasseur, 1962**
(Figs 42–43)

Philonthus cantonneti Levasseur 1962: 54.

TYPE MATERIAL. **Holotype**: ♂, Rég. Kolwezi, Katanga, 15.5.1961, lumière, Dr V. Allard réc., coll. Levasseur // *Philonthus cantonneti* Levasseur det., TYPE [white oblong label handwritten] (MNHN).

TYPE LOCALITY. Democratic Republic of the Congo, Kolwezi, Katanga.

REDESCRIPTION. Body length 11.1 mm, length of fore body (to the end of elytra) 5.9 mm. Head black, clypeus along anterior margin and antennal sockets yellow-brown, maxillary and labial palpi brown, mandibles brown with anterior half brown-black, antennomeres 1–3 and 11 yellow-brown, remaining antennomeres dark brown, pronotum brown-red, elytra, abdomen and legs brown-yellow.

Head distinctly wider than long (ratio 42:34), parallel-sided, eyes slightly projecting, eyes larger than temples (ratio 17:12), posterior angles obtusely rounded, with several short bristles, between eyes four coarse punctures, distance between medial and lateral punctures about 3 times that between medial and lateral punctures, posterior angles of eyes each with three coarse punctures, temporal area each with many coarse punctures, posterior third of head with many coarse punctures in the shape of a V, surface lacks microsculpture

Antennae long, at rest exceed posterior margin of pronotum by the length of antennomere 10, all antennomeres distinctly longer than wide, antennomere 1 longer than antennomere 11, antennomere 3 longer than antennomere 2, antennomeres 7–10 of the same length.

Pronotum slightly wider than long (ratio 52:48), very slightly narrower anteriorly, anterior angles almost rectangular, with several short bristles, each dorsal row with 9 punctures, each sublateral row with 2 punctures, surface lacks microsculpture.

Scutellum very finely and densely punctate, diameter of punctures smaller than eye-facets, distance between punctures one transverse diameter of a puncture.

Elytra wider than long (ratio 66:60), parallel-sided, punctation very fine and dense, diameter of punctures equal to that of eye-facets, distance between punctures equivalent to transverse diameter of one or one and half punctures, posterior margin with many long yellow-brown bristles of variable length, surface between punctures lacks microsculpture; setation long and yellow-brown.

Legs. Metatibia longer than metatarsus (ratio 42:35), metatarsomere 1 longer than metatarsomere 5, metatarsomeres 2–3 combined slightly longer than metatarsomere 1.

Abdomen narrows slightly from visible tergite III towards apex, first three visible tergites with two basal lines, elevated area between lines very finely and relatively sparsely punctate, punctation on tergites very fine and dense, diameter of punctures much smaller than eye-facets, separated by a distance slightly greater than the transverse diameter of one puncture, gradually become finer and sparser towards apex of each tergite. Sides with several long dark bristles of variable length, surface between punctures lacks microsculpture.

Male. Protarsomeres 1–3 strongly dilated, sub-bilobed, each densely covered ventrally with modified pale setae, protarsomere 4 distinctly narrower than preceding ones, triangular, sternite

VIII with a deep, moderately wide, obtusely triangular medioapical emargination. Aedeagus (Figs 42–43).

Female. Unknown.

DIFFERENTIAL DIAGNOSIS. *P. cantonneti* is similar to *P. salti* but differs in the colour of antennomeres 1–3, length of its antennae and the shape of its aedeagus.

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

***Philonthus dionysiae* Laverseur, 1962**
(Figs 44–46)

Philonthus dionysiae Laverseur, 1962: 52.

TYPE MATERIAL. **Holotype:** ♂, 'Rég. Kolwezi, Katanga, coll. Laverseur, Lumiere, Dr. V. Allard Réc., Muséum Paris // *Philonthus dionysiae* Laverseur det., TYPE [white oblong label handwritten]' (MNHN). **Paratype:** ♂, with the same data as for the holotype (MNHN).

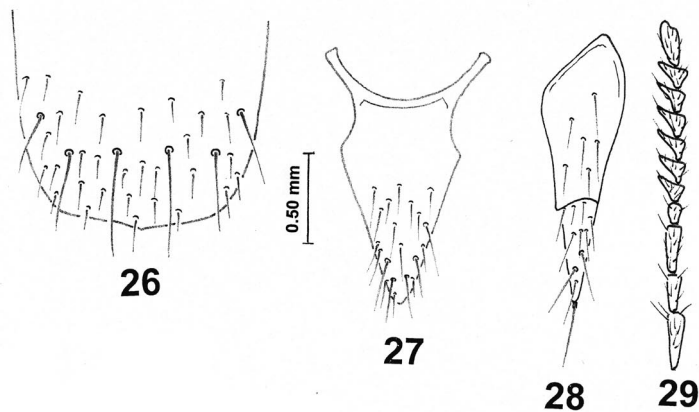
TYPE LOCALITY. Democratic Republic of the Congo: Kolwezi, Katanga.

REDESCRIPTION. Body length 15.7 mm, length of fore body (to the end of elytra) 7.1 mm. Head black, clypeus along anterior margin and antennal sockets red-yellow, middle of clypeus and temples reddish, mandibles brown-black, maxillary and labial palpi, pronotum, scutellum and elytra red-brown, abdomen, antennae and legs red-yellow.

Head distinctly wider than long (ratio 52:39), flat, posterior angles obtusely rounded with 1 long and several shorter black bristles. Eyes slightly smaller than temples (ratio 12:15), temporal areas each very finely and contiguously punctured. Four punctures between eyes, distance between medial interocular punctures about three times greater than that between medial and lateral punctures. Middle of clypeus with short groove. Surface with very fine microsculpture consisting of transverse vawes and many microscopic dots.

Antennae long, at rest reach posterior margin of pronotum, antennomeres 1–7 and 11 longer than wide, antennomere 1 much longer than antennomere 11, antennomeres 2–3 of the same length.

Pronotum wider than long (ratio 63:55), in the middle very convex, anterior angles slightly shifted anteriorly, almost rectangular with several large bristles of variable length, posterior angles



Figs 26–29. *Philonthus lucanicornis* Bernhauer, 1908: 26 – female tergite X dorsal view, 27 – female sternite VIII ventral view, 28 – gonocoxites on female genital segment, 29 – antennae.

conspicuously rounded. Left dorsal row with 4 punctures, right row with 2 punctures, each sub-lateral row with 2 punctures. Sides with several bristles. Surface lacks microsculpture.

Scutellum finely and relatively densely punctate, diameter of punctures smaller than eye-facets, separated by distances greater than one transverse puncture diameter. Surface with microsculpture in places; setation long and dense.

Elytra wider than long (ratio 70:66), slightly wider posteriorly, punctation fine and dense. Diameter of punctures larger than eye-facets, punctures separated by a distance equivalent to one or one and half puncture transverse diameters of punctures. Surface between punctures lacks microsculpture; setation long and yellow-brown.

Legs. Metatarsus longer than metatibia (ratio 42:39), metatarsomere 1 as long as metatarsomere 5, metatarsomere 2 longer than metatarsomere 3.

Abdomen narrows slightly posteriorly. First three visible tergites with two basal lines, elevated area between lines finely punctate. Punctation on tergites finer and denser than on elytra, sides of tergites with several long and dark bristles. Surface lacks microsculpture; setation similar to that on elytra.

Male. Protarsomeres 1–3 markedly dilated and sub-bilobed, each densely covered ventrally with modified pale setae, protarsomere 4 narrower than preceding ones. Aedeagus (Figs 44–46).

Female. Unknown.

DIFFERENTIAL DIAGNOSIS. *P. dionysiae* is similar to *P. jarrigei* from which it may be distinguished by the finer punctation on its elytra, paler legs, parameres longer than median lobe, from *P. ocy-poides* by parameres longer than median lobe, different colour of the middle of clypeus and from both by the different shape of its aedeagus.

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

Philonthus fanynkae sp. nov.

(Figs 12–18)

TYPE MATERIAL. **Holotype:** ♂, Obadán, 15.vii.1960, NIGERIA, C.E. Tottenham collection B.M. 1974-587. // Holotype *Philonthus fanynkae* spec. nov., Hromádka, det., 2006 [red oblong printed label] (NHML).

TYPE LOCALITY. Nigeria: Obadán.

DESCRIPTION. Length: 13.1 mm, length of fore body (to the end of elytra) 6.2 mm. Head black, clypeus black-brown, antennal sockets and labrum yellow-brown, mandibles brown-black with darker tips, pronotum black-brown, elytra light brown, in places darker and translucent, epipleura lighter, abdomen light brown, middle of every tergite slightly darker, palpi and first three antennomeres yellow-brown, remaining antennomeres and legs brown-yellow.

Head transverse, wider than long (ratio 43:40), slightly narrower behind eyes, posterior angles broadly rounded, eyes slightly convex and much larger than temples (ratio 19:7). Four punctures between eyes, distance between medial interocular punctures about 4 times greater than distance between medial and lateral interocular punctures. Temporal area with several coarse punctures, majority of punctures with long, black bristles. Surface with fine, mostly transverse and wavy microsculpture.

Antennae (Fig. 18) long and at rest reach posterior margin of pronotum, antennomere 3 slightly longer than antennomere 2, antennomere 5 missing, antennomeres 6–10 slightly serrate, terminal antennomere a little longer than antennomere 2.

Pronotum somewhat wider than long (ratio 43:40), slightly narrower anteriorly, posterior angles strongly rounded, each dorsal row with 4 punctures, each sublateral row with 2 punctures, microsculpture similar to that on head. Sides with several long black bristles.

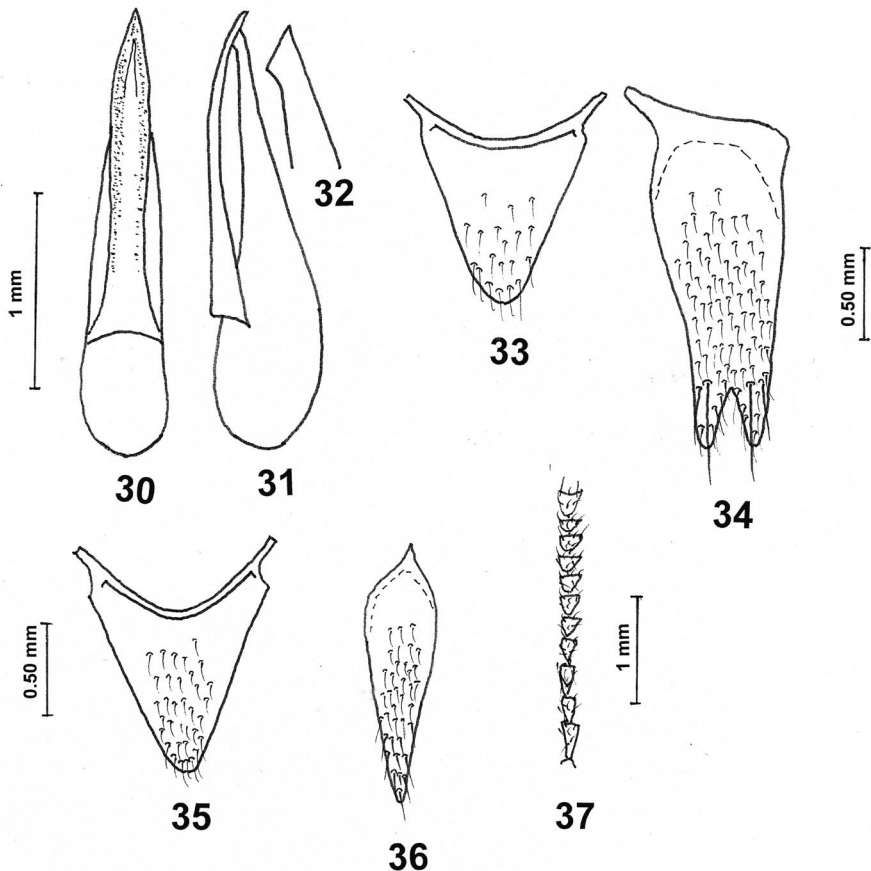
Scutellum densely and finely punctate, surface lacks microsculpture, setation yellow-brown.

Elytra wider than long (ratio 50:40), wider posteriorly, punctation more or less dense, punctures somewhat larger than eye-facets, punctures separated by a distance equivalent to two or three transverse diameters of punctures. Anterior and posterior angles with several long, dark brown bristles. Surface between punctures lacks microsculpture; setation fine, yellow-brown.

Legs. Metatarsus somewhat longer than metatibia (ratio 34:33). Metatarsomere 1 as long as metatarsomeres 2–4 combined, metatarsomere 5 as long as metatarsomeres 3–4 combined.

Abdomen parallel-sided, punctation on tergites similar to that on elytra, distinctly sparse towards apex of each tergite. First three visible tergites with two basal lines, elevated area between lines sparsely punctate. Setation yellow-brown, surface between punctures lacks microsculpture, golden and iridescent.

Male. Protarsomeres 1–3 strongly dilated, sub-bilobed, each densely covered ventrally with modified pale setae, protarsomere 4 distinctly narrower than preceding ones. Sternite VIII (Fig.



Figs 30–37. *Philonthus tabius* Tottenham, 1955: 30 – aedeagus ventral view, 31 – aedeagus lateral view, 32 – apex of paramere, lateral view, 33 – male tergite X, dorsal view, 34 – male sternite IX, ventral view, 35 – female tergite X dorsal view, 36 – genocoxites on female genital segment, 37 – antennae.

15) with deep, moderately wide, obtusely triangular medio-apical emargination, sternite IX (Fig. 16), tergite X (Fig. 17), aedeagus (Figs 12–14).

Female. Unknown.

DIFFERENTIAL DIAGNOSIS. *Philonthus fanyнкаe* sp. nov. is in habitus very similar to *P. bezdeki* sp. nov., from which it can be differentiated by the darker colour of its fore-body, sparse punctation on abdomen, from *P. irritans* Tottenham, 1953 by the darker colour of its fore-body, sparser punctation on elytra, sparser and finer punctation on abdomen and from both by the different shape of its aedeagus.

DISTRIBUTION. Nigeria.

ETYMOLOGY. The species is named in honour of my best four-footed friend, female Chihuahua dog named Fanyнка.

Philonthus irritans Tottenham, 1953

(Figs 19–25)

Philonthus irritans Tottenham, 1953: 139.

TYPE MATERIAL. **Holotype**: ♂, 'Zimbabwe [Rhodesia] Mashonaland Salisbury, Marshall Coll., 1910-42, M. Cameron, Bequest B.M. 1955-147 // *Philonthus irritans* Tottenham, TYPUS [white oblong label handwritten]' (NHML). (*P. ocypoides* Sch. det. Bernhauer). Bernhauer identified this species erroneously as *P. ocypoides* Schubert, 1902.

TYPE LOCALITY. Rhodesia [= Zimbabwe]: Mashonaland Salisbury.

REDESCRIPTION. Body length 12.1 mm, length of fore body (to the end of elytra) 5.8 mm. Head dark reddish-brown, pronotum slightly more reddish than the rest of body, maxillary and labial palpi, antennomeres 1–3 and legs reddish-brown, remaining antennomeres dark brown.

Head distinctly wider than long (ratio 47:35), eyes slightly convex and slightly larger than temples (ratio 16:13), short distance behind eyes parallel, than rounded towards neck, distance between medial interocular punctures about two times the distance between the medial and lateral interocular punctures, three coarse punctures on inner side of each eye, each post-ocular region with numerous slightly smaller punctures, surface with extremely close and fine microsculpture, only visible under high magnification, with extremely small microscopic dots between microsculpture.

Antennae (Fig. 25) long and at rest exceed posterior margin of pronotum, antennomere 3 slightly longer than antennomere 2, antennomere 4 shorter than antennomere 3, antennomeres 5–10 distinctly, but not strongly serrate, terminal antennomere slightly longer than antennomere 3.

Pronotum slightly wider than long (ratio 53:45), sides slightly convex, narrower anteriorly, each dorsal row with 4 moderately strong punctures, each sublateral row with 2 punctures, microsculpture similar to that on head, but less distinct.

Scutellum finely and sparsely punctate, punctures distinctly smaller than those on elytra, distance between punctures 2 or 3 times the diameter of a puncture, surface lacks microsculpture.

Elytra wider than long (ratio 63:61), very slightly wider posteriorly, at base as wide as pronotum, very finely and densely punctate, punctures slightly smaller than eye-facets, separated by a distance smaller than the transverse diameter of one puncture; setation yellow-brown.

Abdomen parallel-sided, first three visible tergites with two basal lines, elevated area between lines punctate, punctation at base of all tergites distinctly finer and denser than on elytra, gradually becoming finer and sparser towards apex of each tergite, surface between punctures lacks microsculpture; setation of the same colour as on elytra.

Legs. Metatarsus somewhat longer than metatibia (ratio 40:36), metatarsomere 1 as long as metatarsomeres 2–3 combined, terminal metatarsomere slightly shorter than metatarsomeres 3–4 combined.

Male. Protarsomeres 1–3 strongly dilated, sub-bilobed, each densely covered ventrally with modified pale setae, protarsomere 4 distinctly narrower than preceding ones, triangular, sternite VIII (Fig. 22) with very deep, moderately wide, obtusely triangular medioapical emargination, sternite IX (Fig. 23), tergite X (Fig. 24), aedeagus (Figs 19–21a).

Female. Unknown.

DIFFERENTIAL DIAGNOSIS. *Philonthus irritans* is very similar to *P. bezdeki* sp. nov. from which it can be differentiated by its smaller eyes, darker head and the denser punctation on elytra and abdomen, from *P. fanynkae* sp. nov. by the lighter colour of its fore-body, denser punctation on elytra and fine and dense punctation on the abdomen and from both by the differnt shape of its aedeagus.

DISTRIBUTION. Zimbabwe (Herman 2001).

***Philonthus jarrigei* Laverseur, 1962**
(Figs 47–49)

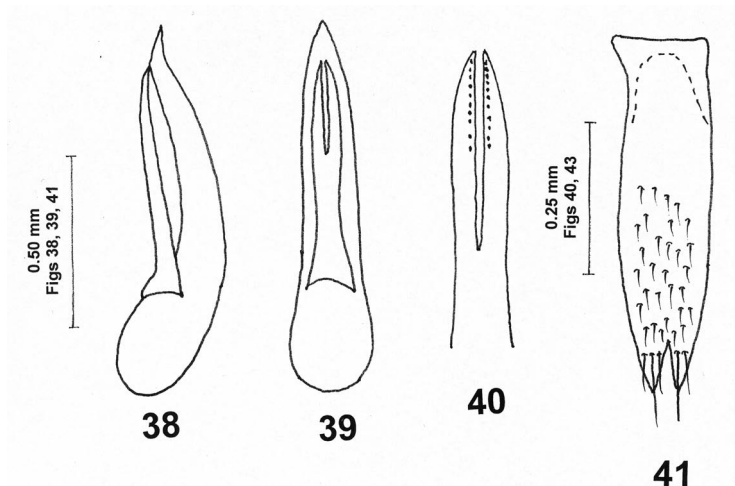
Philonthus jarrigei Laverseur, 1962: 240.

TYPE MATERIAL. **Holotype:** ♂, 'Democratic Republic of the Congo, Ruwe, Kolwezi, Haut Katanga [Congo Belge], 11.iv.1960, D.V. Allard, lumiere, coll. Laverseur // *Philonthus jarrigei* n. sp., L. Laverseur det., TYPE [white oblong label, with red TYPE]'. (MNHN). Unfortunately the aedeagus of the holotype is missing.

ADDITIONAL MATERIAL STUDIED. **Zambia:** 2 ♂♂, 20.iii.1993, 13°30'40"S/32°29'04"E, 29 km NW Chipata, lux, 825M, leg. J. Deckert (ZMHB).

TYPE LOCALITY. Democratic Republic of the Congo, Ruwe, Kolwezi, Haut Katanga [Congo Belge].

REDESCRIPTION. Body length 13.2 mm, length of fore body (to the end of elytra) 6.5 mm. Head black, in the middle wide black-brown, pronotum, scutellum, elytra and abdomen red-brown, base of all visible tergites wide and darker, maxillary, labial palpi and antennae brown, mandibles brown-black, legs brown.



Figs 38–41. *Philonthus balbus* Tottenham, 1955: 38 – aedeagus lateral view, 39 – aedeagus ventral view, 40 – paramere ventral view, 41 – male sternite IX ventral view.

Head transverse, wider than long (ratio 55:41), parallel-sided, posterior angles obtusely rounded with 2 long and several short black bristles. Clypeus with a wide shallow depression medially. Four coarse punctures between eyes, distance between medial interocular punctures three times that between medial and lateral punctures. Eyes slightly convex, smaller than temples (ratio 12:16), temporal areas each with several punctures of unequal length. Surface lacks microsculpture, only with microscopic dots.

Antennae, at rest reach posterior fourth of pronotum. Antennomere 2 slightly longer than antennomere 3, antennomere 1 much longer than antennomere 11, antennomere 2 longer than antennomere 3.

Pronotum transverse, very convex, wider than long (ratio 62:52), slightly narrower anteriorly. Anterior angles bluntly rounded, almost rectangular, with many bristles of unequal length, posterior angles very broadly rounded. Sides with several bristles of unequal length. Each dorsal row with 4 very fine equidistant punctures. Each sublateral row with 2 fine punctures, puncture 2 distinctly shifted laterally. Surface lacks microsculpture.

Scutellum very finely and densely punctate, punctures as large as eye-facets, separated by a distance equivalent to one or two transverse diameters of punctures; setation yellow.

Elytra slightly wider than long (ratio 69:65), very slightly wider posteriorly. Punctuation very fine and dense, punctures insignificantly larger than punctures on scutellum, separated by a distance equivalent to one and half transverse diameters of punctures. Surface between punctures lacks microsculpture; setation yellow.

Legs. Metatibia longer than metatarsus (ratio 47:45), metatarsomere 1 longer than metatarsomere 5, metatarsomere 2 longer than metatarsomere 3.

Abdomen parallel-sided, very gradually narrows towards apex. First three visible tergites with two basal lines, elevated area between lines finely punctate. Punctuation on tergites finer and denser than on elytra. Surface lacks microsculpture; setation similar to that on elytra.

Male. Protarsomeres 1–3 dilated and sub-bilobed, each covered ventrally with modified pale setae, protarsomere 4 very slightly dilated, distinctly narrower than preceding ones. Aedeagus (Figs 47–49).

Female. Unknown.

DIFFERENTIAL DIAGNOSIS. *P. jarrigei* is very close to *P. dionysiae*. It may be distinguished from the latter as its parameres are shorter than the median lobe and the punctures on the elytra are coarser, from *P. ocyroides* by its two-coloured and narrower head and from both by the different shape of its aedeagus.

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

Philonthus lualabaensis Levasseur, 1966 (Figs 50–52)

Philonthus lualabaensis Levasseur, 1966: 1494.

TYPE MATERIAL. **Holotype:** ♂, 'Kolwezi, Katanga, 10.1963, lumiere, Dr. V. Allard, réc., coll. Levasseur // *Philonthus lualabaensis* n. sp. L. Levasseur det. 1965 TYPE [white oblong label, handwritten, red TYPE]' (MNHN).

TYPE LOCALITY. Democratic Republic of the Congo: Kolwezi, Katanga [Congo Belge].

REDESCRIPTION. Body length 11.2 mm, length of fore body (to the end of elytra) 5.1 mm. Head black, pronotum and scutellum orange-red, elytra brown-yellow, with patches that are darker and translucent, abdomen brown-yellow. Maxillary, labial palpi and antennomeres 1–3 orange-red, antennomeres 4–11 black-brown, mandibles black-brown, legs brown-yellow.

Head transverse, wider than long (ratio 36:31), parallel-sided, posterior angles markedly rounded, with two long and several short bristles. Four coarse punctures between eyes, arranged in a straight line, distance between medial interocular punctures, three times the distance between medial and lateral puncture. Eyes larger than temples (ratio 13:10). From the middle of inner margin of eyes, obliquely towards the middle of posterior margin and entire temple area there are many small setiferous punctures. Surface lacks microsculpture.

Antennae at rest exceed posterior margin of pronotum by the length of the three terminal antennomeres, all antennomeres longer than wide. Antennomere 1 distinctly longer than antennomere 11, antennomere 2 shorter than antennomere 3.

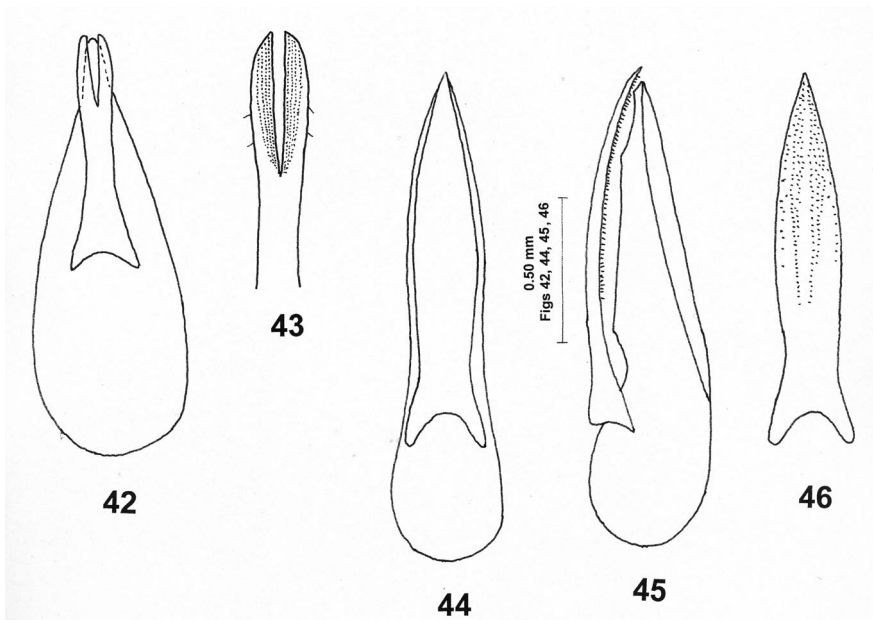
Pronotum very convex, wider than long (ratio 51:44), slightly narrower anteriorly, anterior angles bluntly rounded, with 1 long black bristle, posterior angles strongly rounded, sides with several bristles of unequal length. Each dorsal row with 5 fine punctures. Punctures 1–4 equidistant, separation between punctures 4 and 5 slightly greater. Each sublateral row with 2 punctures, puncture 2 shifted laterally. Surface lacks microsculpture.

Scutellum very finely and densely punctate, diameter of punctures equal to that of eye-facets, separated by the transverse diameter of one puncture, setation short and yellow.

Elytra wider than long (ratio 64:55), very slightly wider posteriorly, sides with many long black bristles of variable length. Punctuation coarser than that on scutellum, separated by the diameter of one puncture or slightly less. Surface lacks microsculpture; ginger-haired.

Legs. Metatibia longer than metatarsus (ratio 40:38). Metatarsomere 1 as long as metatarsomeres 2 and 4 combined, metatarsomere 5 shorter than metatarsomere 1.

Abdomen wide, very gradually narrows towards apex. First three visible tergites with two basal lines, elevated area between lines with scattered punctures. Punctuation on visible tergites



Figs 42–43. *Philonthus cantonneti* Levasseur, 1962: 42 – aedeagus ventral view, 43 – paramere ventral view. *Philonthus dionysiae* Levasseur, 1962: 44 – aedeagus ventral view, 45 – aedeagus lateral view, 46 – paramere ventral view.

much finer and denser than on elytra, becoming sparser towards apex of each tegite. Surface lacks microsculpture; setation similar to that on elytra.

Male. Protarsomeres 1–3 strongly dilated and sub-bilobed, each covered ventrally with modified pale setae, protarsomere 4 distinctly narrower than preceding ones, heart shaped. Aedeagus (Figs 50–52).

Female. Unknown.

DIFFERENTIAL DIAGNOSIS. *P. lualabaensis* may be differentiated from all the species in this group by the presence of dorsal rows of 5 punctures on pronotum (in contrast to the two or four punctures in all other species) and the different shape of its aedeagus.

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

***Philonthus lucanicornis* Bernhauer, 1908**

(Figs 26–29)

Philonthus lucanicornis Bernhauer, 1908: 111.

TYPE MATERIAL. **Holotype:** ♀, 'Gabon, det. Bernhauer, Chicago NHMuseum, M. Bernhauer Collection // *Philonthus lucanicornis* Bernhauer TYPE [white oblong label handwritten]' (FMNH).

TYPE LOCALITY. Gabon.

REDESCRIPTION. Length: 10.1 mm, length of fore body (to the end of elytra) 5.3 mm. Head black, anterior margin of clypeus and antennal sockets slightly yellow-brown, mandibles brown, with tips black-brown, pronotum orange-brown, elytra brown, in places darker and translucent, abdomen orange-brown, maxillary, labial palpi and antennae brown, legs brown-yellow.

Head slightly transverse, wider than long (ratio 37.5:36), slightly narrower towards neck, eyes slightly projecting and much larger than temples (ratio 17:8), posterior angles strongly rounded with one long and several shorter bristles. Four punctures between eyes, distance between medial interocular punctures about three times greater than that between medial and lateral interocular puncture. Temporal area each with several unequal but large punctures, surface with almost invisible microsculpture and extremely small microscopic dots.

Antennae (Fig. 29) long, at rest exceed posterior margin of pronotum by about the length of the terminal antennomere, antennomere 3 a little longer than antennomere 2, antennomeres 5–10 strongly serrate, terminal antennomere slightly shorter than antennomere 3.

Pronotum wider than long (ratio 45:38), very slightly wider posteriorly, posterior angles strongly rounded, right dorsal row with six punctures, left row with seven punctures, right sublateral row with three punctures, left row with four punctures, surface with traces of patches of fine, transverse, wavy microsculpture.

Scutellum very sparsely and finely punctate, punctures distinctly smaller than eye-facets, separated by a distance equivalent to the transverse diameters of two punctures, surface lacks microsculpture.

Elytra slightly wider than long (ratio 55:46), parallel-sided, punctation fine and relatively sparse, diameter of punctures equal to that of eye-facets, separated mostly by distances equivalent to the transverse diameters of two punctures, surface lacks microsculpture; setation yellowish.

Abdomen parallel-sided, from visible tergite III slightly narrows towards apex, first three visible tergites with two basal lines, elevated area between lines punctate, punctation on tergites finer and denser than that on elytra, surface between punctures lacks microsculpture; setation same colour as on elytra.

Legs. Metatarsus as long as metatibia, metatarsomere 1 a little longer than metatarsomeres 2–3 combined, metatarsomere 5 a little longer than metatarsomeres 2–3 combined.

Female. Anterior tarsus of holotype missing, tergite X (Fig. 26), sternite VIII (Fig. 27), gonocoxite of female genital segment (fig. 28).

DIFFERENTIAL DIAGNOSIS. *Philonthus lucanicornis* is similar to *P. aemulus* Tottenham, 1939, from which it may be differentiated by its darker antennomeres 1–2 and elytra, and the different shape of its aedeagus.

DISTRIBUTION. Gabon (Herman 2001).

***Philonthus macronyx* sp. nov.**

(Figs 53–56)

TYPE MATERIAL. **Holotype:** ♂, 'Kundelungu 1750m 9.iii.1950, n. Leleup, I.R.S.A.C, Mus. Congo. Récolte dans nid de *Cryptomys* // *Philonthus macronyx* spec. nov. Hromádka det. 2009 [red oblong printed label]' (MRAT). **Paratypes:** 51 species with the same data as for Holotype (LHPC, MRAT), 15 spec., Massif Kundelungu, 1750m, 21.III.1950, Prairie herbeuse, N. Leleup, coll., Mus. Congo. Récolté dans terrier de *Cryptomys* (MRAT). [All paratypes with red labels, printed].

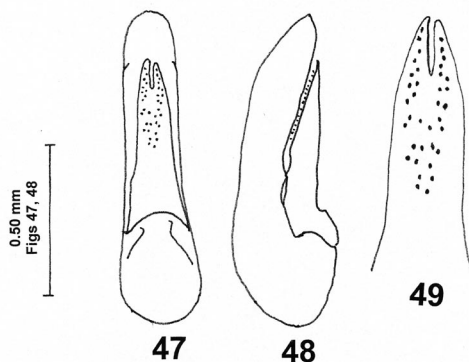
TYPE LOCALITY. Democratic Republic of the Congo, Kundelungu, 1750 m.

DESCRIPTION. Body length 13.3–15.3 mm, length of fore body (to the end of elytra) 6.2–7.8 mm. Head black-brown, pronotum brown-orange, scutellum, elytra and abdomen light brown, mandibles dark brown, antennomeres 1–3 brown-yellow, remaining antennomeres brown, maxillary, labial palpi and legs yellow-brown.

Head square-shaped, wider than long (ratio 51:47), parallel-sided, posterior angles obtusely rounded, with several short yellow bristles. Eyes small, distinctly smaller than temples (ratio 11:25.5). Between eyes 6 coarse punctures, punctures 2 and 5 slightly anterior to others. Temple areas with many unequal but large punctures. Surface lacks microsculpture.

Antennae long and slender, at rest exceed posterior margin of pronotum by the length of 11 antennomeres, all antennomeres longer than wide. Antennomere 1 much longer than antennomere 11, antennomere 2 shorter than antennomere 3.

Pronotum as long as wide, very convex, anterior angles conspicuously deflexed, slightly obtusely rounded, posterior angles markedly rounded. Each dorsal row with 2 very fine punctures, distance between puncture 1 and anterior margin the same as the length of antennomere 11, distance between puncture 2 and posterior margin equal to the length of antennomere 2. Each sublateral row with 1 puncture. Sides slightly rounded, distinctly wider in the middle. Surface lacks microsculpture.



Figs 47–49. *Philonthus jarrigei* Levasseur 1961: 47 – aedeagus ventral view, 48 – aedeagus lateral view, 49 – apex of paramere ventral view.

Scutellum finely and densely punctate, diameter of punctures as large as eye-facets, distance between punctures equivalent to the transverse diameter of one or one and half punctures. Surface with traces of fine microsculpture; setation yellow-brown.

Elytra as long as wide, slightly wider posteriorly. Punctuation fine and dense. Punctures larger than eye-facets, separated by the transverse diameter of one puncture. Surface between punctures lacks microsculpture; setation similar to that on scutellum.

Legs. Metatarsus shorter than metatibia (ratio 54:57). Metatarsomere 1 slightly longer than metatarsomere 5.

Abdomen wide, slightly narrows from visible tergite III towards base and apex. Elevated area between two basal lines on first three visible tergites impunctate. Punctuation at base of all tergites finer and denser than that on elytra, gradually becoming finer and slightly sparser towards apex on each tergite. Surface between punctures lacks microsculpture; setation similar to that on elytra.

Male. Protarsomeres 1–3 relatively slightly dilated and sub-bilobed, each covered ventrally with modified pale setae, protarsomere 4 narrower than preceding ones. Sternite VIII (Fig. 55), sternite IX (Fig. 56), aedeagus (Figs 53–54).

Female. Protarsomeres 1–3 only slightly dilated, scarcely sub-bilobed, each with ventrally a few modified pale setae, protarsomere 4 only slightly narrower than preceding ones, lacking modified pale setae ventrally.

DIFFERENTIAL DIAGNOSIS. *P. macronyx* sp. nov. may be differentiated from all the species in this group by the presence of two punctures in dorsal rows on pronotum (in contrast to the 4, 5 or 6 punctures present in all other species) and by the different shape of its aedeagus.

ETYMOLOGY. The name of this species, a noun in apposition, is the Latin generic name of the African abyssinian *Macronyx flavicollis* Rupell, 1840.

DISTRIBUTION. Democratic Republic of the Congo.

Philonthus ocypoides Schubert, 1911 (Figs 57–60)

Philonthus ocypoides Schubert, 1911: 22.

TYPE MATERIAL. **Holotype:** ♂, 'Usambara, Nguelo // HOLOTYPUS *Philonthus ocypoides* Schubert, 1911, labelled by MNHUB 2005 [red oblong printed label]', (*Philonthus schuberti*, white oblong printed label) (ZMNB).

TYPE LOCALITY. Tanzania, Usambara, Nguelo.

REDESCRIPTION. Body length 14.3 mm, length of fore body 7.2 mm (to the end of elytra). Head black, pronotum unicolored reddish-brown, scutellum and elytra slightly paler, abdomen brown, posterior margin of all tergites narrowly brown-yellow, mandibles dark brown, maxillary, labial palpi and antennae red-brown, femora brown-yellow, tibiae and tarsi darker.

Head markedly transverse, wider than long (ratio 62:45), sides behind eyes parallel. Eyes smaller than temples (ratio 16:21), Between eyes 4 punctures, distance between medial interocular punctures about four times that separating medial and lateral punctures. Posterior margin of eyes with 3 coarse punctures, temporal area with several setiferous punctures. Surface lacks microsculpture, with many microscopic dots.

Antennae relatively short, at rest reach posterior third of pronotum. Antennomere 1 longer than antennomere 11, antennomere 2 as long as antennomeres 2–3 combined.

Pronotum very convex, wider than long (ratio 64:52), anterior angles conspicuously deflexed and slightly obtusely rounded, almost rectangular, posterior angles markedly rounded. Each dorsal row with 4 fine punctures, almost equidistant, each sublateral row with 1 puncture, situated near to the dorsal rows. Surface lacks microsculpture.

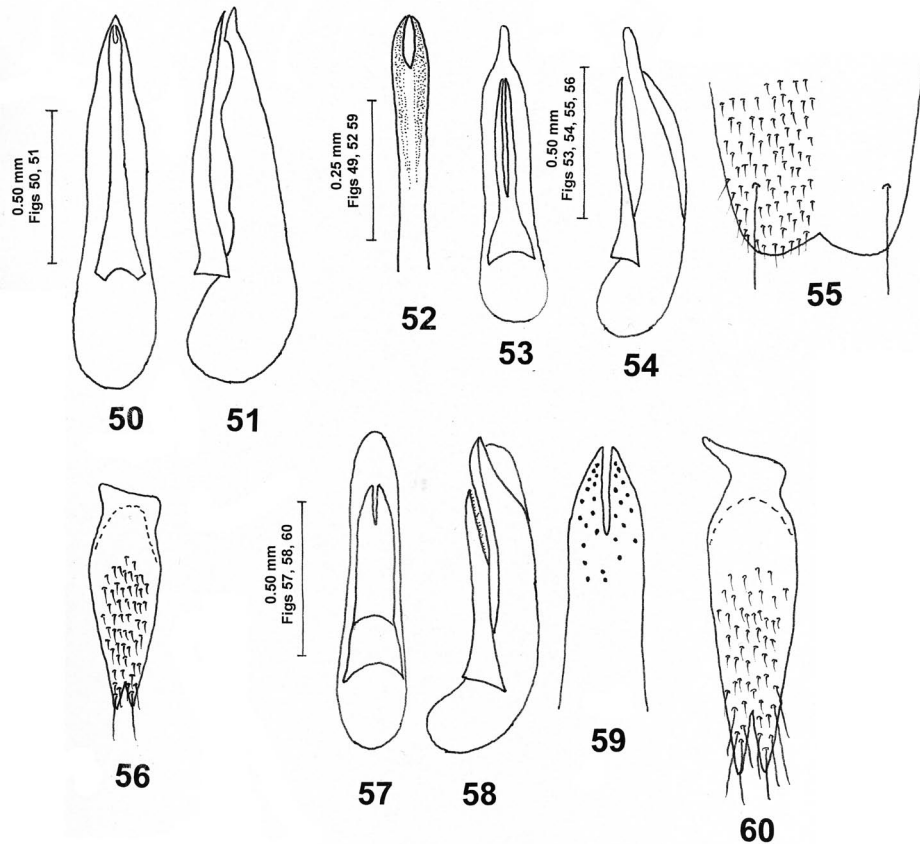
Scutellum very densely and coarsely punctured, punctures larger than eye-facets, distance between punctures small.

Elytra square, as wide as long, parallel-sided. Punctuation very fine and dense, diameter of punctures equal to those of eye-facets, separated by a distance equivalent to the diameter of one puncture or slightly less. Surface lacks microsculpture; setation long, yellowish.

Legs. Metatarsus longer than metatibia (ratio 46:42). Metatarsomere 1 longer than metatarsomere 5, metatarsomeres 2 and 3 combined, as long as metatarsomere 1.

Abdomen wide, very gradually narrows towards apex, first three visible tergites with 2 basal lines, elevated area between lines densely and coarsely punctate. Punctuation at base of all tergites finer and denser than on elytra, becoming slightly sparser towards apex of each tergite. Surface lacks microsculpture; setation similar to that on elytra.

Male. Protarsomeres 1–3 strongly dilated and sub-bilobed, each covered ventrally with modified pale setae, protarsomere 4 narrower than preceding ones. Sternite IX (Fig. 60), aedeagus (Figs 57–59).



Figs 50–60. *Philonthus lualabaensis* Levasseur, 1966: 50 – aedeagus ventral view, 51 – aedeagus lateral view, 52 – apex of paramere ventral view. *Philonthus macronyx* sp. nov.: 53 – aedeagus ventral view, 54 – aedeagus lateral view, 55 – sternite VIII ventral view, 56 – male sternite IX ventral view. *Philonthus ocyppoides* Schubert, 1911: 57 – aedeagus ventral view, 58 – aedeagus lateral view, 59 – apex of paramere ventral view, 60 – male sternite IX ventral view.

Female. Unknown.

DIFFERENTIAL DIAGNOSIS. *P. ocypoides* may be distinguished from *P. dionysiae* as its parameres are shorter than the median lobe and the middle of its clypeus is unicolored, from *P. jarrigei* by its wider and unicolored head and from both by the different shape of its aedeagus.

DISTRIBUTION. Tanzania, Senegal (Herman 2001).

Philonthus salti Tottenham, 1953

(Figs 61–64)

Philonthus salti Tottenham, 1953: 447.

TYPE MATERIAL. Not studied.

ADDITIONAL MATERIAL STUDIED. **Cameroon:** ♂, South Prov., Yaounde [Congo-Guinean Rain Forest], 16.ix–30.ix.1980, black light, Rolf L. Albu col. El. 700 m. (LHPC). **Nigeria:** ♂, Abargasit, 3.xi.1978, R. Macek leg., (LHPC).

TYPE LOCALITY. Uganda: Kawanda, near Kampala.

REDESCRIPTION. Body length 12.3 mm, length of fore body (to the end of elytra) 5.9 mm. Head black, pronotum, scutellum, elytra and abdomen brownish red, maxillary, labial palpi, mandibles, antennae and legs dark brown.

Head distinctly wider than long (ratio 48:35), very slightly narrows posteriorly, posterior angles appreciable but obtusely rounded. Four coarse punctures between eyes, distance between medial interocular punctures four times that between medial and lateral punctures. Eyes larger than temples (ratio 17:12), a series of strong punctures along posterior margin of each eye. Temples with many large punctures of variable length. Surface with fine transverse microsculpture.

Antennae long and slender. Antennomeres 1–5 and 10–11 longer than wide, antennomeres 6–9 as long as wide. Antennomere 1 longer than antennomere 11, antennomere 2 slightly shorter than antennomere 3.

Pronotum wider than long (ratio 53:48), anterior angles rectangular, conspicuously deflexed, slightly obtusely rounded, posterior angles strongly rounded. Parallel-sided, very slightly narrower anteriorly. Each dorsal row with 4 punctures, distance between punctures 1–2 and 3–4 identical, distance between punctures 3–4 slightly longer, each sublateral row with 3 punctures arranged in an oblique row, puncture 3 distinctly shifted laterally. Surface with fine and dense eye-like microsculpture.

Scutellum finely and densely punctured, punctures as large as eye-facets, separated by a distance equivalent to the transverse diameter of one and half or two punctures.

Elytra as long as wide, parallel-sided, finely and closely punctured, but distinctly more conspicuous than on scutellum, surface lacks microsculpture; setation rather long, yellowish brown.

Legs. Metatibia as long as metatarsus, metatarsomere 1 as long as metatarsomere 5 and longer than metatarsomeres 2 and 3 combined.

Abdomen wide, very gradually narrows towards apex, extremely closely punctured, especially the bases of all tergites. First three visible tergites with two basal lines, elevated area between lines finely punctate. Surface lacks microsculpture; setation similar to that on elytra.

Male. Protarsomeres 1–3 markedly dilated and sub-bilobed, each covered ventrally with modified pale setae, protarsometre 4 distinctly narrower than preceding ones. Sternite IX (fig. 64), aedeagus (Figs 61–63).

Female. Unknown.

DIFFERENTIAL DIAGNOSIS. *P. salti* may be distinguished from the similar *P. cantonneti* by its uniformly coloured and shorter antennae and the different shape of its aedeagus.

DISTRIBUTION. Uganda, Cameroon, Democratic Republic of Congo, Nigeria.

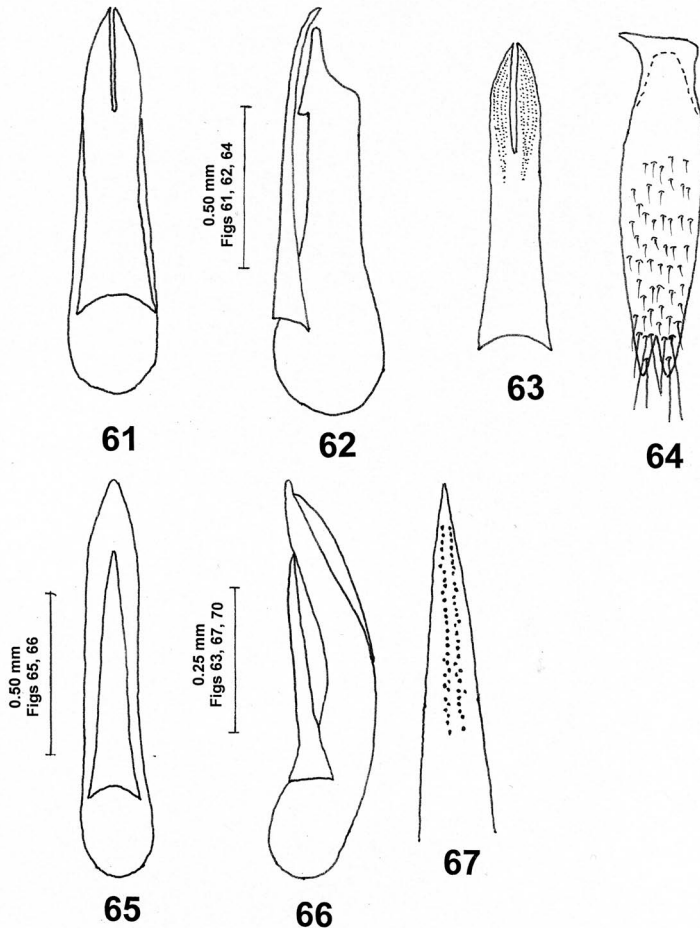
Philonthus soricinus sp.nov.

(Figs 65–67)

TYPE MATERIAL. **Holotype**: ♂, 'Gabon, Luango, R.I.Sc.N.B. 17.479, coll. et det. A. Fauvel, *soricinus* Fauvel // *Philonthus soricinus* Tottenham, TYPE [ochre oblong label handwritten] // HOLOTYPE, *Philonthus soricinus* sp. nov., Hromádka det., 2009 [red oblong printed label]' (IRSB). **Paratypes**: 3 spec., same data as for the holotype (IRSB). All paratypes with printed red label. This new species is in the collection of the Bruxelles museum and was determined by Fauvel and Tottenham as *P. soricinus* but never described. This new species is described here under the same name, *P. soricinus* sp. nov.

TYPE LOCALITY. Gabon, Luango.

DESCRIPTION. Body length 13.6–13.8 mm, length of fore body (to the end of elytra) 6.4–6.6 mm. Head black, pronotum orange-brown, scutellum, elytra and legs brown-yellow, abdomen brown, posterior margin of all tergites pale brown, mandibles dark brown, maxillary, labial palpi and antennomeres 1–3 yellow-brown, remaining antennomeres brown.



Figs 61–67. *Philonthus salti* Tottenham, 1955: 61 – aedeagus ventral view, 62 – aedeagus lateral view, 63 – paramere ventral view, 64 – male sternite IX ventral view. *Philonthus soricinus* sp. nov.: 65 – aedeagus ventral view, 66 – aedeagus lateral view, 67 – apex of paramere ventral view.

Head transverse, parallel-sided, wider than long (ratio 60:47), posterior angles rounded, each with 1 long and several short orange bristles. Eyes small, much smaller than temples (ratio 15 : 25). Four punctures between eyes arranged in a straight line, distance between medial interocular punctures about five times that between medial and lateral interocular punctures. Posterior margin of eyes, each with 3 coarse punctures. From posterior margin of each eye, towards to the middle of posterior margin of head, oblique row of 6 punctures. Temporal area each with many unequally large setiferous punctures. Surface lacks microsculpture.

Antennae slender and long, antennomeres 1–5 and 11 longer than wide, antennomeres 6–10 as long as wide. Antennomere 1 twice as long as antennomere 11, antennomere 2 shorter than antennomere 3.

Pronotum wider than long (ratio 63:55), anterior angles rectangular, conspicuously deflexed, very slightly rounded, with several long orange bristles, posterior angles markedly rounded. Sides with many unequally long bristles. Each dorsal row with 4 fine punctures, punctures 2–4 approximately equidistant, distance between punctures 1–2 much smaller than that between punctures 2–4. Each sublateral row with 2 fine punctures, puncture 2 distinctly shifted laterally. Surface lacks microsculpture.

Scutellum very densely and finely punctate, diameter of punctures as large as eye-facets, distance between punctures very short. Setation orange and long.

Elytra wider than long (ratio 69:63), parallel-sided. Punctuation fine and dense. Punctures slightly larger than eye-facets, separated by a distance equal to transverse diameter of one puncture. Surface between punctures lacks microsculpture; setation long and orange.

Legs. Metatibia as long as metatarsus. Metatarsomere 1 longer than metatarsomere 5.

Abdomen wide, very slightly gradually narrows towards apex, first three visible tergites with two basal lines, elevated area between lines densely and finely punctate. Punctuation on all tergites very fine and dense, punctures as large as eye-facets, distance between punctures very short, surface lacks microsculpture; setation similar to that on elytra.

Male. Protarsomeres 1–3 dilated and sub-bilobed, each covered ventrally with modified pale setae, protarsomere 4 distinctly narrower than preceding ones. Aedeagus (Figs 65–67).

Female. Protarsomeres 1–3 much less dilated than in male.

DIFFERENTIAL DIAGNOSIS. This new species is similar to *P. balbus*, but differs in having smaller eyes, paler antennomeres 1–3 and in the different shape of its aedeagus.

DISTRIBUTION. Gabon.

Philonthus tabius Tottenham, 1955

(Figs 30–37)

Philonthus tabius Tottenham, 1955: 176.

TYPE MATERIAL. **Holotype**: ♂, 'Cape Colony: Queenstown, xii. 1949, W. Whitehead. C. E. Tottenham collection. B.M. 1974-587 // *Philonthus tabius* Tottenham TYPE [white oblong label handwritten]' (NHML). **Paratype**: ♀, Orange Free State: Springfontein, i. 1948, P. Jackson. C. E. Tottenham collection B.M. 1974-587 (NHML).

TYPE LOCALITY. Republic of South Africa, Cape Colony: Queenstown.

REDESCRIPTION. Length: 12.8–13.1 mm, length of fore body (to the end of elytra) 5.8–6.1 mm. Head black, clypeus along anterior margin and antennal sockets yellow-brown, mandibles brown-yellow with tips slightly darker, pronotum orange-red, scutellum, elytra, abdomen, maxillary and labial palpi yellow-brown, antennomeres 1–9 brown, remaining antennomeres slightly paler, legs brown-yellow.

Head transverse, distinctly wider than long (ratio 48:38), posterior angles rounded, with one long black bristle, eyes slightly projecting and much larger than temples (ratio 18:8), between eyes 4 punctures, distance between medial interocular punctures three times that between medial and lateral punctures. Temporal area with many small punctures, surface with very irregular, almost indistinct microsculpture, with many microscopic dots.

Antennae (Fig. 37) long, at rest reach posterior third of pronotum, antennomere 3 slightly longer than antennomere 2, antennomeres 6–10 slightly serrate, terminal antennomere slightly shorter than antennomere 2.

Pronotum wider than long (ratio 55:47), widest in basal third, narrower anteriorly, anterior and posterior angles each with 1 long bristle, left dorsal row with 2 very fine punctures, right row with 4 fine punctures, each sublateral row with 1 puncture, surface shiny, lacks microsculpture, with many microscopic dots.

Entire scutellum very fine and densely punctate, punctures smaller than eye-facets, distance between them approximately same as the diameter of a puncture; setation yellow.

Elytra distinctly wider than long (ratio 67:47), wider posteriorly, punctation identical to that on scutellum, surface between punctures lacks microsculpture; setation yellow.

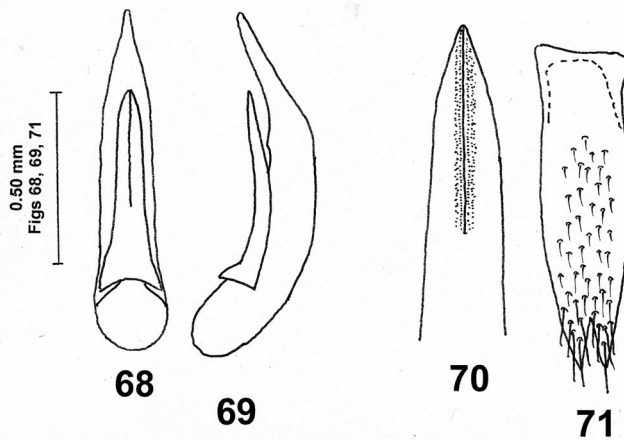
Abdomen wide and parallel, punctation similar to that on elytra, elevated area between two basal lines on first three visible tergites impunctate, surface lacks microsculpture; setation yellow.

Legs. Metatibia much longer than metatarsus (ratio 43:28), metatarsomere 1 slightly shorter than metatarsomeres 2–3 combined, terminal metatarsomere as long as metatarsomere 2.

Male. Protarsomeres 1–3 markedly dilated and sub-bilobed, each covered ventrally with modified pale setae, protarsomere 4 much narrower than preceding ones, sternite IX (Fig. 34), tergite X (Fig. 33), aedeagus (Figs 30–32).

Female. Protarsomeres 1–3 only slightly dilated, each ventrally with a few modified pale setae, protarsomere 2 narrower than the apex of tibia, tergite X (Fig. 35), gonocoxites of female genital segment (Fig. 36).

DIFFERENTIAL DIAGNOSIS. *Philonthus tabius* is in size and habitus similar to *P. fanyynkae* sp. nov. from which it may be distinguished by its paler antennae and pronotum and the denser punctation on elytra, from *P. bezdeki* sp. nov. by its darker head, more convex eyes, denser and finer punctation



Figs 68–71. *Nephronthus grandis* Bernhauer, 1932: 68 – aedeagus ventral view, 69 – aedeagus lateral view, 70 – apex of paramere ventral view, 71 – male sternite IX ventral view.

on elytra, from *P. irritans* by its more convex eyes, shorter antennae, denser and finer punctation on elytra and from all these species by the different shape of its aedeagus.
 DISTRIBUTION. Republic of South Africa (Herman 2001).

Apart from the above review of the *Philonthus aemulus* species-group, the following new synonymy is proposed:

***Nephronthus grandis* (Bernhauer, 1932)**
 (Figs 68–71)

Pseudophilonthus nov. subg. *Nephronthus grandis* Bernhauer, 1932:147.

Philonthus ardoini Levasseur, 1966: 1495. **syn. n.**

TYPE MATERIAL. *Nephronthus grandis*: **Holotype**: ♂, Haut-Uele: Abimua: Moto: Yebo Moto, Tora, Musée du Congo, VII – 1925, Burgeon, Chicago NHMuseum, M. Bernhauer Collection (FMNH); **Paratypes**: 2 spec. with identical data on label to that for the holotype (FMNH). *Philonthus ardoini*: **Holotype**: ♂, Katire-Equatoria, République du Sudan A.E., 8.vi.1962, coll. Levasseur, Museum Paris (MNHN).

Key to species of the *Philonthus aemulus* species group

1	Antennomeres serrate	2
	– Antennomeres normal, not serrate	7
2	Each dorsal row on pronotum with 4 punctures	3
	– Each dorsal row on pronotum with 6 punctures	5
3	Pronotum reddish or red-brown	4
	– Pronotum black-brown. Nigeria	<i>P. fanyynkae</i> sp. nov.
4	Head and pronotum dark reddish, eyes small (eye length/temple length ratio 16:13), very dense punctation on elytra and abdomen. Zimbabwe	<i>P. irritans</i> Tottenham, 1953
	– Head brown-red, pronotum red-brown, eyes large (eye length/temple length ratio 18:8.5), distinctly sparse punctation on elytra and abdomen. Malawi	<i>P. bezdeki</i> sp. nov.
	– Head black, punctation on elytra exceptionally dense and fine. South Africa	<i>P. tabius</i> Tottenham, 1939
5	Small species, body length 10.0:12.2 mm	6
	– Large species, body length 12.4:15.1 mm. Antennae project beyond posterior margin of pronotum by about the length of the two terminal antennomeres, pronotum much shorter than the elytra. Central African Republic, Congo, Malawi, Nanubia, RSA, Senegal, Tanzania	<i>P. aemulus</i> Tottenham, 1939
6	Head black, pronotum orange-brown, elytra brown with darker and translucent patches, antennae only just reach the posterior margin of the pronotum. Gabon	<i>P. lucanicornis</i> Bernhauer, 1908
7	Each dorsal row with 2 or 4 punctures	8
	– Each dorsal row with 5 punctures	15
8	Each dorsal row with 2 punctures, eyes distinctly smaller than temples (ratio 11.0:25.5), antennomeres 1–3 brown-yellow, remaining antennomeres brown. Democratic Republic of the Congo	<i>P. macronyx</i> sp. nov.
	– Each dorsal row with 4 punctures	9
9	Eyes larger than temples	10
	– Eyes smaller than temple	11
10	Antennomeres 1–3 and 11 yellow-brown, remaining antennomeres dark brown, pronotum brown-red. Democratic Republic of the Congo	<i>P. cantonneti</i> Levasseur, 1962
	– Entire antennae dark brown, pronotum brown-red. Uganda	<i>P. salti</i> Tottenham, 1953
11	Antennomeres yellow-brown or antennomeres 1–3 yellow-brown	12
	– Entire antennae brown	13
12	Antennomere 1 yellow-brown, remaining antennomeres brown. Pronotum and elytra reddish-brown, paramere apically divided into two narrowly separated branches. Republic of South Africa, Botswana, Uganda	<i>P. balbus</i> Tottenham, 1955
	– Antennomeres 1–3 yellow-brown, remaining antennomeres brown. Paramere not divided apically. Gabon	<i>P. soricinus</i> sp. nov.
13	Parameres longer than median-lobe, antennae and legs red-yellow. Democratic Republic of the Congo	<i>P. dionysiae</i> Levasseur, 1962

- Parameres shorter than median lobe. 14
- 14 Parameres each apically divided into two narrowly separated branches. Democratic Republic of the Congo. *P. jarrigei* Levasseur, 1962
- Parameres each not apically divided. Tanzania. Senegal. *P. ocyptoides* Schubert, 1911
- 15 Antennomeres 1–3 orange-red, remaining antennomeres red-brown. Eyes larger than temples (ratio 13:10). Democratic Republic of the Congo. *P. lualabaensis* Levasseur, 1966

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