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

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Abstract. The *Philonthus maculipennis* species group of the genus *Philonthus* Stephens, 1829, is proposed, containing 11 species, two species are described as new: *Philonthus lanius* sp. n. (Cameroon), *P. synodontis* sp. nov. (Liberia, South Africa, Sierra Leone, Uganda), remaining nine species are redescribed: *Philonthus constricticeps* Tottenham, 1949 (Zimbabwe), *P. cruentus* Bernhauer, 1915 (Tanzania), *P. ischnocerus* Cameron, 1935 (Democratic Republic of the Congo), *P. jacksoni* (Cameron, 1950) (Uganda), *P. jelineki* Hromádka, 2009 (South Africa), *P. kashiutensis* Tottenham, 1949 (Zambia), *P. kigenius* Tottenham, 1962 (South Africa), *P. maculipennis* Fauvel, 1903 (Cameroon, Central African Republic), *P. smaragdinus* Tottenham, 1949 (Democratic Republic of the Congo, Ethiopia). One species is transfered to *Philonthus* Stephens, 1829 from the genus *Gabrius* Stephens, 1829: *Philonthus jacksoni* (Cameron, 1950) comb. nov. All species of the *P. maculipennis* species group are keyed, the aedeagi and relevant morphological characters of all species are figured.

Key words. Taxonomy, revision, redescriptions, new species, new combination, key, Coleoptera, Staphylinidae, Staphylininae, Philonthina, *Philonthus maculipennis* species group, distribution, Afrotropical region.

INTRODUCTION

The *Philonthus maculipennis* species group is characterized by the following characters: Body small to middle sized 5.1–8.9 mm long. Antennae of different length, reaching posterior fourth of pronotum or exceeding posterior margin of pronotum by the length of antennomere 1 when reclined. Head and pronotum differently coloured from black over brown-black to yellow brown, elytra coloured from black over testaceous to red. Abdomen mostly black, first three visible tergites with two basal lines, elevated area between lines punctate or impunctate. Protarsomeres 1–3 by male markedly dilated and sub-bilobed, by female protarsomeres 1–3 less dilated than those of male. Representatives of this group are characterized by the most important sign of the shape of the paramere, which is very short, simple or divided into two short parallel branches.

The following eleven species are included in this group.

Philonthus constricticeps Tottenham, 1949	Zimbabwe
Philonthus cruentus Bernhauer, 1915	Tanzania
Philonthus ischnocerus Cameron, 1935	Democratic Republic of the Congo
Philonthus jacksoni (Cameron, 1950)	Uganda
Philonthus jelineki Hromádka, 2009	South Africa
Philonthus kashituensis Tottenham, 1949	Zambia
Philonthus kigenius Tottenham, 1962	South Africa
Philonthus lanius sp. nov.	Cameroon
Philonthus maculipennis Fauvel, 1903	Cameroon, Central African Republic, Gabon, Liberia, Sierra Leone
Philonthus smaragdinus Tottenham, 1949	Democratic Republic of the Congo, Ethiopia
Philonthus synodontis sp. nov.	Liberia, Sierra Leone, Uganda

MATERIAL AND METHODS

The specimen studied are deposited in the following collections (curators in parentheses):

BMNH Natural History Museum, London, United Kingdom (Maxwell V. L. Barclay, Roger Booth & Martin Brendell);
FMNH Field Museum of Natural History, Chicago, USA (James Boone);
LHPC Lubomír Hromádka collection, Praha, Czech Republic;
IRSB Institut royal Sciences naturelles de Belgique, Bruxelles, Belgique (Yvonnick Gerard);
NMPC Národní museum, Praha, Czech Republic (Jiří Hájek);
NMUK Manchester Museum, Manchester, United Kingdom (Dmitri Logunov);
ZMHB Museum der Alexander Hunboldt Universität, Berlin, Germany (Manfred Uhlig).

A double slash // is used to divide the separate labels of each type specimen. All measurements are beetles with stretched abdomens. All ratios mentioned in the descriptions are dimensionless but can be converted to length in millimeters.

TAXONOMIC PART

Philonthus constricticeps Tottenham, 1949
(Figs 1–3)

Philonthus constricticeps Tottenham, 1949: 347.

Type locality. Mashonaland: Salisbury [= Zimbabwe, Harare].

Type material studied. **Zimbabwe**. Holotype: ♀: "Zimbabwe, Salisbury, Mashonaland, G. A. K. Marshall, Marshall Collection,1910-42. //*Philonthus constricticeps* Tottenham TYPE [ochre oblong label, handwritten]" (BMNH).

Additional material studied. **Ethiopia**. 1 spec., Bahr-Dar 4.vi.1967, P. Štys lgt. (LHPC); – 1 spec., Arsi, Lole, 8.i.1989, under stones, leg., S. Persson (LHPC).

Redescrption. Body length 8.9 mm, length of fore body 3.8 mm. Head, pronotum and scutellum black, elytra red, suture and elytral epipleura black, abdomen black with strong green-red-violet metallic iridescent. Maxillary and labial palpi and mandibles brown-yellow, antennomere 1 brown-yellow, remaining antennomeres pitchy brown. Femora and tarsi brown, tibiae black.

Head oval, slightly longer than wide (ratio 21 : 19) posterior angels indistinct, bearing several short bristles. Four punctures between eyes, medial punctures slightly shifted anteriad, distance between medial punctures 4 times as long as distance between medial and lateral puncture. Eyes flat, nearly as long as temples, posterior angles with two coarse punctures, whole temporal area with several variably large, mostly setiferous punctures. Surface without microsculpture.

Antennae slender and long, reaching posterior margin of pronotum when reclined. Antennomeres 1–7 and 11 longer than wide, antennomeres 8–10 as long as wide. Antennomere 1 twice longer than antennomere 11, antennomere 2 slightly shorter than antennomere 3.

Pronotum highly convex, wider than long (ratio 33 : 31) distinctly narrowed anteriad. Anterior angles rectangularly rounded, posterior angles markedly rounded. Each dorsal row with six approximately equidistant punctures, each sublateral row with two punctures arranged in a row

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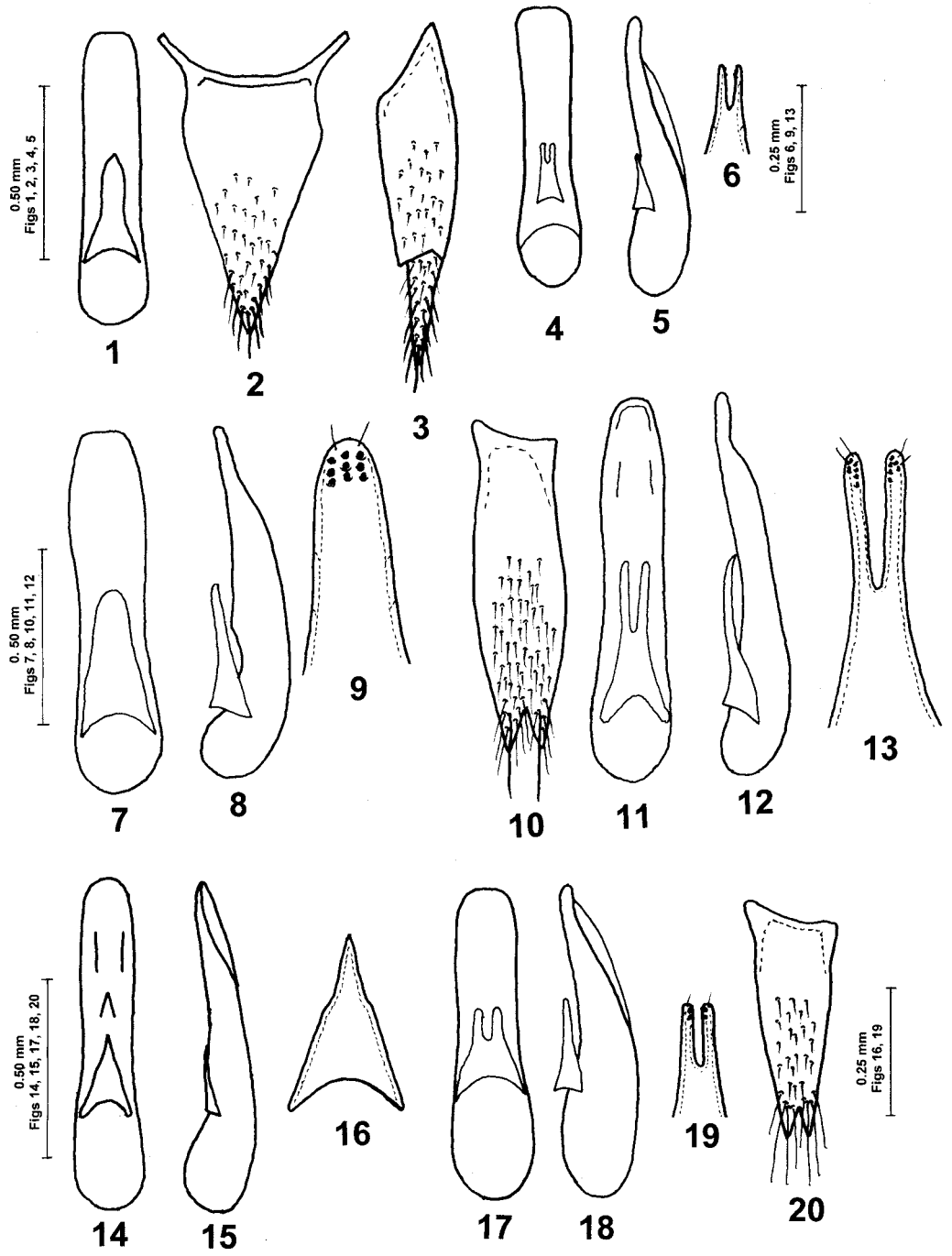
Figs 1–20. 1–3 – *Philonthus constricipes* Tottenham, 1949: 1 – aedeagus, ventral view, 2 – aedeagus, lateral view, 3 – apex of paramere with sensory peg setae, ventral view. 4–6 – *Philonthus cruentus* Bernhauer, 1915: 4 – aedeagus, ventral view, 5 – aedeagus, lateral view, 6 – apex of paramere with sensory peg setae, ventral view. 7–10 – *Philonthus ischnocerus* Cameron, 1935: 7 – aedeagus, ventral view, 8 – aedeagus, lateral view, 9 – apex of paramere with sensory peg setae, ventral view, 10 – male sternite IX, ventral view. 11–13 – *Philonthus jacksoni*, Cameron, 1950: 11 – aedeagus, ventral view, 12 – aedeagus, lateral view, 13 – apex of paramere with sensory peg setae, ventral view. 14–16 – *Philonthus jelineki* Hromádka, 2009: 14 – aedeagus, ventral view, 15 – aedeagus, lateral view, 16 – paramere, ventral view. 17–20 – *Philonthus kashiutensis* Tottenham, 1949: 17 – aedeagus, ventral view, 18 – aedeagus, lateral view, 19 – apex of paramere with sensory peg setae, ventral view, 20 – male sternite IX, ventral view.


0.50 mm
Figs 1, 2, 3, 4, 5
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Figs 6, 9, 13
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Figs 7, 8, 10, 11, 12
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parallel to the dorsal row and half way between it and side, puncture two situated behind level of puncture three in dorsal row. Surface without microsculpture.

Scutellum very densely and finely punctate, diameter of punctures as large as eye-facets, separated smaller than puncture diameter in transverse direction.

Elytra wider than long (ratio 41 : 37), slightly widened posteriad. Punctation very dense and very fine, diameter of punctures as large as eye-facets, separated by puncture diameter, or smaller here and there. Surface without microsculpture; setation yellow-brown.

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

Abdomen wide, very gradually narrowed posteriad, first three visible tergites with two basal lines, elevated area between lines impunctate. Punctation at base of all tergites slightly coarser than that on elytra, punctures mostly of drop-shaped, becoming sparser towards posterior margin of each tergite. Surface without microsculpture; setation similar to that on elytra.

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

Female. Protarsomeres 1–3 similar to that in male, covered with modified pale setae ventrally.

Differential diagnosis. *Philonthus constricticeps* is similar to *P. ischnocerus* from which it may be distinguished by the red elytra, shorter antennae, slightly sparser punctation of abdomen and by the different shape of the aedeagus.

Distribution. Zimbabwe (Herman 2001).

Philonontus cruentus **Bernhauer, 1915**

(Figs 4–6)

Philonthus cruentus Bernhauer, 1915: 300.

Type locality. São Tomé Island.

Type material studied. **Insel São Tomé**. Syntype: ♂: “Insel São Tomé: Agua-Ize 200–700 m, xii.1900-01, L.Fea, Museo Civ. Genova. //*cruentus* Bernhauer, COTYPUS [ochre oblong label, handwritten]” (FMNH).

Additional material studied. **Insel São Tomé**.1 spec.,Vista Alegre, 200–300 m.s.m., L. Fea, Museo Civ. Genova (FMNH).

Redescription. Body length 5.1 mm, length of fore body 2.8 mm. Body yellow-red, maxillary, labial palpi, antennomeres 1–3 and 11 yellow, remaining antennomeres and mandibles brown.

Head slightly wider than long (ratio 18 : 16), slightly narrowed posteriad, posterior angles indistinct, bearing several variably long bristles. Clypeus with a small depression medially. Eyes slightly longer than temples (ratio 7 : 6), temporal area with several small punctures, surface without microsculpture.

Antennae reaching almost posterior margin of pronotum when reclined. Antennomere1 longer than antennomere 11, antennomeres 2 and 3 of equal length.

Pronotum wider than long (ratio 24 : 22), slightly narrowed anteriad, anterior angles bearing several bristles, posterior angles markedly rounded. Each dorsal row with six punctures, punctures 1–5 approximately equidistant, distance between punctures 5–6 longer than distance between previous punctures. Each sublateral row with three punctures arranged in a row parallel to the dorsal row and half way between it and side. Surface without microsculpture.

Scutellum very coarsely and densely punctate, punctures larger than eye-facets, separated by distance smaller than puncture diameter.

Elytra wider than long (ratio 29 : 25), very slightly widened posteriad. Punctation dense and coarse, diameter of punctures larger than that on scutellum, separated by puncture diameter in transverse direction. Surface without microsculpture; setation yellowish.

Legs. Metatarsus as long as metatibia, metatarsomere 1 as long as metatarsomere 5.

Abdomen wide, first three visible tergites with two basal lines, elevated area between lines punctate. Punctation at base of all tergites denser and finer than that on elytra, becoming finer and sparser towards posterior margin of each tergite. Surface without microsculpture; setation similar to that on elytra.

Male. Protarsomeres 1–3 dilated and sub-bilobed, each covered with modified pale setae ventrally, protarsomere 4 narrower than preceding ones. Aedeagus (Figs 4–6).

Female. Protarsomeres 1–3 slightly dilated and sub-bilobed, protarsomere 4 smaller than preceding ones.

Differential diagnosis. *Philonthus cruentus* may be distinguished from *P. maculipennis* as its different colouring of the whole body and antennae, from *P. synodontis* sp. nov. by the paler body, wider pronotum and from both by the different shape of aedeagus.

Distribution. São Tomé and Príncipe (Herman 2001).

***Philonthus ischnocerus* Cameron, 1935**

(Figs 7–10)

Philonthus ischnocerus Cameron, 1935: 374.

Type locality. Democratic Republic of the Congo, Nizi: Blukwa.

Type material studied. **Democratic Republic of the Congo**. Holotype: ♂, "Democratic Republic of the Congo, Nizi: Blukwa, 30.i.1929, A. Collart //*Philonthus ischnocerus* Cameron, TYPE, [ochre oblong label, handwritten] Coll. R.I.Sc. N.B. " (IRSB), Paratypes: 4 spec., same label data as in holotype (IRSB).

Additional material studied. **Democratic Republic of the Congo**. 31 spec., same label data as in holotype (IRSB). – **Ethiopia**. 1 spec., Babit Dar am Lake Tana, Hotelgelände, 13.i.1996, 11°36'N/37°32'E, J. Deckert, leg. (LHPC).

Redescription. Body length 8.4–8.8 mm, length of fore body 3.6–3.8 mm. Head black, pronotum, scutellum, elytra and abdomen black-brown, pronotum very slightly blue iridescent, abdomen rainbow-iridescent. Maxillary and labial palpi brown, antennomere 1 brown-yellow, remaining antennomeres dark brown, femora brown-yellow, tibiae darker, tarsi dark brown, slightly paler distally.

Head as long as wide, posterior angles indistinct, bearing one long black bristle, distinctly narrows from posterior margin of eyes posteriad. Four punctures between eyes arranged in a straight line, distance between medial punctures four times as large as distance between medial and lateral puncture. Eyes as long as temples, surface without microsculpture.

Antennae long, exceeding posterior margin of pronotum by the length on antennomere 1 when reclined. All antennomeres longer than wide. Antennomere 1 longer than antennomere 11, as long as antennomeres 9–10 combined, antennomere 2 slightly shorter than antennomere 3.

Pronotum highly convex, as long as wide, narrowed anteriad, anterior angles obtusely rounded, posterior angles markedly rounded. Each dorsal row with six approximately equidistant punctures, each sublateral row with two punctures, puncture one situated behind level of puncture three in dorsal row, puncture two situated behind level of puncture four in dorsal row and slightly shifted to the lateral margin. One long black bristle in anterior third of sides. Surface without microsculpture.

Scutellum very densely and finely punctate, diameter of punctures slightly smaller than eye-facets, separated by distance smaller than puncture diameter.

Elytra wider than long (ratio 42 : 37) slightly narrowed posteriad. Punctation slightly coarser than that on scutellum, separated by distance mostly as large as puncture diameter in transverse direction, somewhere smaller. Surface without microsculpture; setation brown-yellow.

Legs. Metatarsus slightly longer than metatibia (ratio 30.5 : 29), metatarsomere 1 longer than metatarsomere 5, as long as metatarsomeres 2–3 combined.

Abdomen wide, very slightly gradually narrowed posteriad, first three visible tergites with two basal lines, elevated area between lines impunctate. Punctation and setation of visible tergites similar to that on elytra. Surface without microsculpture.

Male. Protarsomeres 1–3 dilated and sub-bilobed, each covered with modified pale setae ventrally, protarsomere 4 smaller than preceding ones. Sternite IX (Fig.10), aedeagus (Figs 7–9).

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

Differential diagnosis. *Philonthus ischnocerus* is very close to *P. smaragdinus*. It may be distinguished from the latter by the slightly longer antennae, not bluish iridescent head, from *P. constrictipes* by the black elytra, longer antennae, distinctly denser punctation of abdomen and from booth by the different shape of aedeagus.

Distribution. Democratic Republic of the Congo (Herman 2001), Ethiopia.

***Philonthus jacksoni* (Cameron, 1950), comb. nov.**

(Figs 11–13)

Philonthus jacksoni Cameron, 1950: 401.
Gabrius jacksoni: Schillhammer 1997: 78; Hermann 2001: 2629, 2848.

Type locality. Uganda, Kalinzu.

Type material studied. **Uganda**. Holotype: ♂, "Uganda, Kalinzu, x.1937, 4.000 ft., T,H.E. Jackson, Pres by Com. Indy. Ent. B.M. 1952-513., ///*Philonthus jacksoni*, TYPE Cameron, [white oblong label handwritten]" (BMNH).

Redescription. Body length 8.5 mm, length of fore body 4.5 mm. Head, elytra and abdomen black, scutellum and pronotum black-brown, posterior margin of all tergites narrowly brown. Maxillary, labial palpi and base of antennomere two brown-yellow, remaining antennomeres black, femora brown-yellow, tibiae black, tarsomere one of all tarsi black, all tarsi gradually paler distally.

Head wider than long (ratio 29 : 24), from the middle of eyes distinctly narrowed towards neck, posterior angles markedly rounded. Between eyes four coarse punctures, distance between medial punctures five times larger than distance between medial and lateral puncture. Eyes slightly convex, distinctly longer than temples (ratio 13 : 8), posterior margin with two coarse punctures, temporal area with scattered punctures, surface without microsculpture.

Right antenna with 8 antennomeres, left antenna with 3 antennomeres. All antennomeres longer than wide. Antennomere 2 shorter than antennomere 3.

Pronotum longer than wide (ratio 37 : 35), slightly narrowed anteriad, posterior angles markedly rounded. Each dorsal row with five punctures, punctures 3–5 equidistant, distance between punctures 2–3 about half shorter than distance between previous punctures, distance between punctures 1–2 larger than distance between punctures 3–5. Each sublateral row with two punctures arranged in a row parallel to the dorsal row and half way between it and side. Surface without microsculpture.

Scutellum finely and sparsely punctate, diameter of punctures as large as eye-facets, distance between punctures larger than one puncture diameter. Setation dark and longer.

Elytra wider than long (ratio 50 :44), slightly widened posteriad. Punctation fine and sparse, diameter of punctures larger than that on scutellum, separated mostly twice larger than diameter of punctures. Surface without microsculpture; setation by holotype grazed.

Legs. Metatibia slightly longer than metatarsus (ratio 31 : 30), metatarsomere 1 almost twice longer than metatarsomere 5, longer than metatarsomeres 2–3 combined.

Abdomen wide, slightly and gradually narrows from visible tergite three towards apex. Punctation at base of all tergites extremely fine and dense, becoming slightly finer and sparser towards posterior margin of each tergite.

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

Female. Unknown.

Differential diagnosis. *Philonthus jacksoni* is similar to *P. kigenius* from which it may be differentiated by its longer eyes, pronotum without golden iridescent and by the different shape of the aedeagus.

Distribution. Uganda (Herman 2001).

Comment. Schillhammer (1997: 78) and Herman (2001: 2629, 2848) reported this species as *Gabrius* Stephens, 1829. I saw a type (male) of this species from the Natural History Museum, London and I found that this species belongs to the genus *Philonthus* Stephens, 1829.

***Philonthus jelineki* Hromádka, 2009**

(Figs 14–16)

Philonthus jelineki Hromádka, 2009: 672.

Type locality. South Africa. Die Panne N. R. Cape Province [= Northern Cape Province].

Type material studied. **South Africa**. Holotype: ♂: "Republic of South Africa, Die Panne N. R. Cape Province [= Northern Cape Province]. 5.–6.i.1972. Southern African Expedition, B. M. 1972-1., litter by brackish pools //Holotype, *Philonthus jelineki* sp. nov. Hromádka, det. 2008 [red oblong printed label]" (BMNH).

Redescription. Body length 5.8–6.2 mm, length of fore body 2.9–3.2. Head, pronotum and antennae black, pronotum, abdomen, maxillary and labial palpi and mandibles black-brown, femora dark brown-yellow, tibiae and tarsi slightly darker.

Head of rounded quadrangular shape, slightly wider than long (ratio 18 : 17), from posterior margin of eyes slightly narrowed posteriad. Four punctures situated between eyes, distance between medial interocular punctures four times as large as distance between medial and lateral puncture.Temporal area each with several coarser punctures, surface with dense and very fine misrosculpture consisting of mostly transverse waves.

Antennae moderately long, reaching posterior margin of pronotum when reclined. Antennomere 1 longer than antennomeres 1–2 combined and twice longer than antennomere 11, antennomere 2 longer than antennomere 3.

Pronotum longer than wide (ratio 24 : 22), distinctly narrowed anteriad. Each dorsal row with six punctures, punctures 2–5 equidistant, distance between punctures 1–2 and 5–6 about 1.5 times larger than distance between punctures 2–5. Each sublateral row with two punctures, puncture one situated behind level of puncture three in dorsal row. Microsculpture similar to that on head.

Scutellum very densely and finely punctate, diameter of punctures as large as eye-facets, separated by distance larger than puncture diameter. Surface with traces of fine microsculpture.

Elytra as wide as long, very slightly widened posteriad, punctation fine and dense, diameter of punctures as large as eye facets, separated by puncture diameter in transverse direction. Surface between punctures without microsculpture; setation brown.

Legs. Metatibia longer than metatarsus (ratio 18 : 16). Metatarsomere 1 slightly shorter than metatarsomeres 2–3 combined, almost twice longer than metatarsomere 5.

Abdomen wide, slightly narrowed from tergite five posteriad. First three visible tergites with two basal lines, elevated area between lines more or less densely punctate. Punctation of tergites similar to that on elytra, gradually becoming sparser towards posterior margin of each tergite, surface without microsculpture; setation similar to that on elytra.

Male. Protarsomeres 1–3 strongly dilated, sub-bilobed, densely covered with modified pale setae ventrally. Protarsomere 4 considerably narrower than preceding ones, not sub-bilobed, lacking modified pale setae ventrally. Aedeagus (Figs 14–16).

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

DIFFERENTIAL DIAGNOSIS. *Philonthus jelineki* is very similar to *P. smaragdinu*s from which it differs by the presence of microsculpture on the head and pronotum, shorter antennae, from *P. lanius* sp. n. by the different colouring and denser and finer punctation of elytra and from both by the different shape of the aedeagus.

DISTRIBUTION. South Africa (Hromádka 2009).

Philonthus kashituensis Tottenham, 1949
(Figs 17–20)

Philonthus kashituensis Tottenham, 1949: 324.

TYPE LOCALITY. Zambia [N.W. Rhodesia], Kashitu, N. of Broken Hill.

TYPE MATERIAL STUDIED. **Zambia**. Holotype: ♀: "Zambia [N.W. Rhodesia], Kashitu, N. of Broken Hill, 25.iii.1915, H. C. Dollman, H.C. Dollman collection, 1919-79 //*Philonthus kashituensis* Tottenham, TYPE [ochre oblong label handwritten]" (BMNH).

ADDITIONAL MATERIAL EXAMINED. **Zambia**. 4 spec., same label data as holotype (BMNH).

REDESCRIPTION. Body length 5.5 mm, length of fore body 2.6 mm. Head black, pronotum and scutellum brownish-black, elytra testaceous, posterior margin, suture and scutelary region dark brown, abdomen dark brown, posterior margin of all tergites narrowly dull yellow. Maxillary, labial palpi, antennomeres 1–3 and 11 testaceous, remaining antennomeres dark brown, legs testaceous.

Head wider than long (ratio 21 : 16), from posterior margin of eyes slightly narrowed posteriad, posterior angles obtusely rounded, bearing several variably long bristles. Four coarse punctures between eyes, arranged in a straight line, distance between medial punctures 3.5 times as large as distance between lateral and medial puncture. Eyes longer than temples (ratio 8 : 5), one coarse puncture situated about two thirds of inner side of eyes, posterior margin with two coarse punctures, temporal area with several coarse punctures. Surface with very fine irregular microsculpture.

Antennae stout, distinctly widened distally, remaining posterior margin of pronotum when reclined. Antennomeres 1–3 and 11 longer than wide, antennomere 4 as long as wide, antennomeres 5–10 wider than long, antennomere 1 longer than antennomere 11, antennomere 2 as long as antennomere 3.

Pronotum quadrate, as long as wide, anterior angles rectagularly rounded, posterior angles markedly rounded. Each dorsal row with four coarse approximately equidistant punctures, each

sublateral row with two punctures. Puncture two situated behind level of puncture three in dorsal row and distinctly shifted to the lateral margin. Surface with more distinct microsculpture than that on head, consisting of transverse waves.

Scutellum very finely and sparsely punctate, diameter of punctures as large as eye-facets, separated by one and half puncture diameter in transverse direction, surface with distinct microsculpture; setation yellow-brown.

Elytra almost as long as wide, very slightly widened posteriad. Punctation fine and dense, diameter of punctures as large as eye-facets, separated mostly by puncture diameter in transverse direction. Surface without microsculpture; setation short, yellow-brown.

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

Abdomen very gradually narrowed posteriad, first three visible tergites with two basal lines, elevated area between lines impunctate, punctation of tergites much denser and finer than that on elytra, diameter of punctures as large as eye-facets, separated by one or one and half puncture diameters in transverse direction. Surface without microsculpture; setation of the same colour as that on elytra.

Male. Protarsomeres 1–3 relatively slightly dilated and sub-bilobed, each covered with modified pale setae ventrally, protarsomere 4 narrower than preceding ones. Sternite IX (Fig. 20), aedeagus (Figs 17–19).

Female. Protarsomeres 1–3 simple, moderately dilated, each covered with modified pale setae ventrally.

Differential diagnosis. *Philonthus kashituensis* may be distinguished from all species of this group by the presence of four punctures in dorsal rows of the pronotum (in contrast to five or six punctures present in all other species).

Distribution. Zambia (Herman 2001).

Philonthus kigenius Tottenham, 1962

(Figs 21–23)

Philonthus kigenius Tottenham, 1962: 200.

Type locality. South Africa: Western Cape: Simon's Town.

Type material studied. **South Africa**. Holotype: ♂: "Simon's Town, iv.-vi.1915, M.C.M. Cameron // *Philonthus kigenius* Tottenham TYPE, B.M. 1953-147 [ochre oblong label handwritten]" (BMNH).

Redescription. Body length 8.3 mm, length of fore body 3.9 mm. Head, elytra and abdomen black, pronotum black-brown, distinctly golden iridescent. Palpomeres 1–2 of both palps black-brown, palpomere 3 slightly paler, mandibles brown-black. Base of antennomere 2 narrowly yellow-brown, remaining antennomeres black. Femora and tibiae black, tarsi brown.

Head wider than long (ratio 24.5 : 21), from posterior margin of eyes slightly narrowed posteriad. Posterior angels indistinct, bearing two long black bristles. Four punctures between eyes arranged in a straight line, distance between medial punctures four times as large as distance between medial and lateral puncture. Eyes flat, longer than temples (ratio 9 : 7), posterior margin with three punctures. Temporal area impunctate. Surface with very fine microsculpture consisting of transverse waves.

Antennae long, reaching posterior margin of pronotum when reclined. Antennomeres 1–5 and 11 longer than wide, antennomere 6 as long as wide, antennomeres 7–10 slightly wider than long.

Antennomere 1 longer than antennomere 11, distinctly shorter than antennomeres 2–3 combined, antennomere 2 shorter than antennomere 3.

Pronotum wider than long (ratio 28.5 : 27), slightly narrowed anteriad. Each dorsal row with five punctures, punctures 2–4 equidistant, distance between punctures 1 and 2 and 4 and 5 twice longer than distance between punctures 2–4. Each sublateral row with two punctures, puncture two slightly shifted laterally. Surface with microsculpture similar to that on head.

Scutellum densely and finely punctate, except last fourth. Diameter of punctures as large as eye-facets, separation between punctures much less than one puncture diameter.

Elytra wider than long (ratio 37 : 35), slightly widened posteriad. Punctation fine and dense, diameter of punctures slightly larger than that on scutellum. Separated by puncture diameter, smaller here and there. Anterior angels bearing one long black bristle, posterior margin bearing many short bristles. Surface without microsculpture; setation darker.

Legs. Metatibia as long as metatarsus. Metatarsomere 1 as long as metatarsomere 5, slightly shorter than metatarsomeres 3–4 combined.

Abdomen from visible tergite V slightly narrowed anteriad and distinctly posteriad. First three visible tergites with two basal lines, elevated area between lines densely punctate. Punctation at base of all tergites denser and finer than that on elytra, becoming finer and sparser towards posterior margin of each tergite. Surface without microsculpture; setation of the same colour as that on elytra.

Male. Protarsomeres 1–3 distinctly dilated and sub-bilobed, distinctly covered with modified pale setae ventrally, protarsomere 4 smaller than preceding ones.Aedeagus (Figs 21–23).

Female. Unknown.

Differential diagnosis. *Philonthus kigenius* is very close to *P. jacksoni*. It may be distinguished by the shorter eyes, golden iridescent pronotum and by the different shape of the aedeagus.

Distribution. South Africa (Herman 2001).

***Philonthus lanius* sp. nov.**

(Figs 33–37)

Type locality. Cameroon.

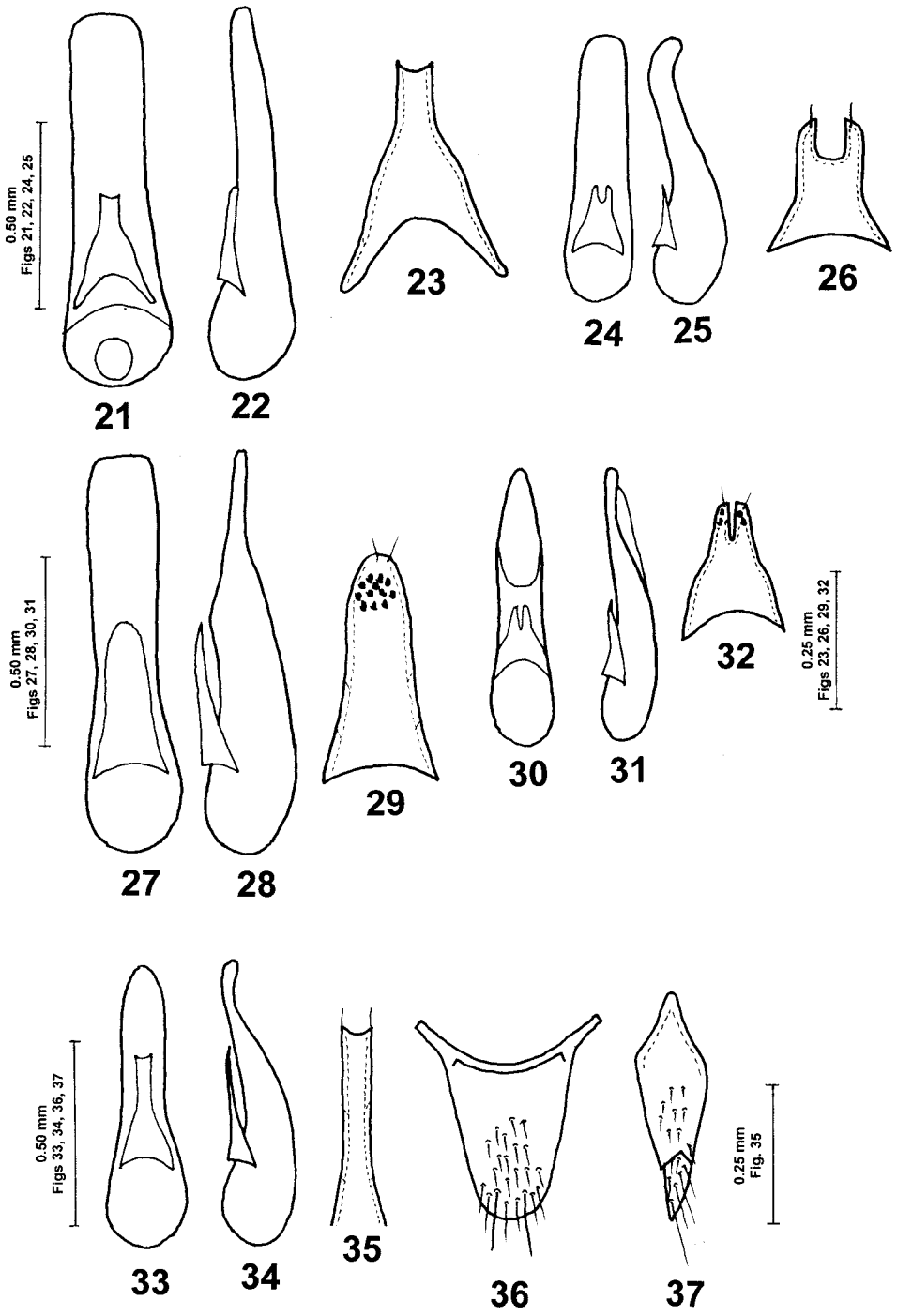
Type material.studied. **Cameroon**. Holotype: ♂, "Kamerun, Joh.-Albrechtshöhe, 14.ix.–6.x.1898, L. Conrads. // Holotype Philonthus lanius sp. nov. Hromádka det. 2012, [red oblong label printed]" (NHMC). Paratypes: 2 spec., same label data as holotype (NHMC, LHPC).

Description. Body length 6.4 mm, length of fore body 3.2 mm.

Colouration. Head and abdomen black, pronotum and scutellum black-brown, elytra black, the greater part of anterior half of elytra yellow-brown. Maxillary, labial palpi, mandibles and antennomeres 1–2 and 11 and base of antennomere 3 dirty yellow, remaining antennomeres dark brown. Femora and tibiae brown-black, tarsi brown-yellow.

→

Figs 21–37. 21–23 – *Philonthus kigenius* Tottenham, 1962: 21 – aedeagus, venntral view, 22 – aedeagus, lateral view, 23 – paramere, ventral view. 24–26 – *Philonthus maculipennis* Fauvel, 1903: 24 – aedeagus, ventral view, 25 – aedeagus, lateral view, 26 – apex of paramere with sensory peg setae, ventral view. 27–29 – *Philonthus smaragdinus* Tottenham, 1949: 27 – aedeagus, ventral view, 28 – aedeagus, lateral view, 29 – apex of paramere with sensory peg setae, ventral view. 30–32 – *Philonthus synodontis* sp. nov.: 30 – aedeagus, ventral view, 31 – aedeagus, lateral view, 32 – apex of paramere with sensory peg setae, ventral view. 33–37 – *Philonthus lanius* sp. nov.: 33 – aedeagus, ventral view, 34 – aedeagus, lateral view, 35 – apex of paramere, ventral view, 36 – female tergite X, ventral view, 37 – gonocoxite of female genital segment.


0.50 mm
Figs 21, 22, 24, 25
21
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23
24
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0.50 mm
Figs 27, 28, 30, 31
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28
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30
31
32
0.25 mm
Figs 23, 26, 29, 32
0.50 mm
Figs 33, 34, 36, 37
33
34
35
36
37
0.25 mm
Fig. 35

Head trapezoidal, wider than long (ratio 23 : 19), distinctly narrowed posteriad, posterior angles indistinct, bearing one long and several short bristles. Between eyes six coarse approximately equidistant punctures, arranged in a straight line. Eyes large, slightly convex, longer than temples (ratio 10 : 6), posterior margin of eyes with one coarse puncture. Temporal area in posterior half with several setiferous puncures. Surface lacks microsculpture.

Antennae long, reaching posterior margin of pronotum when reclined, slightly widened distally. Antennomeres 1–3 and 11 distinctly longer than wide, antennomeres 4 small as long as wide, antennomeres 5 slightly wider than long, antennomeres 6–10 distinctly wider than long.

Pronotum highly convex, approximately as long as wide, slightly narrowed anteriad. Anterior angles rectangular, slightly obtusely rounded, bearing several long black bristles, posterior angles markedly rounded. Each dorsal row with six punctures, distance between punctures 2–5 equidistant, distance between punctures1–2 and 5–6 slightly larger than distance between previous punctures. Each sublateral row with three punctures, puncture two slightly shifted to the lateral margin. Sides bearing several long black bristles. Surface lacks microsculptur.

Scutellum with several very fine single punctures, diameter of punctures approximately as large as eye-facets, separated by distance mostly two puncture diameters.

Elytra wider than long (ratio 39 : 34), widened posteriad. Punctation fine and dense, diameter of punctures slightly larger than that on scutellum, punctures separated by one or one and half puncture diameters. Sides and posterior margin bearing several black long bristles. Surface lacks microsculpture; setation long, yellow-brown.

Legs. Metatarsus as long as metatibia, metatarsomere 1 shorter than metatarsomere 5, slightly shorter than metatarsomeres 2–4 combined.

Abdomen wide, very gradually narrowed posteriad, first three visible tergites with two basal lines, elevated area between lines with scattered punctures. Punctation at base of all tergites finer and sparser than that on elytra, becoming sparser towards posterior margin of each tergite. Surface without microsculpture; setation long and dark, sides bearing several long dark bristles.

Male. Metatarsomeres 1–3 only slightly dilated and sub-bilobed, each covered with modified pale setae ventrally, metatarsomere 4 narrower than preceding ones. Aedeagus (Figs 33–35).

Female. Metatarsomeres 1–3 similar to those of male. Tergite X (Fig. 36), gonocoxite of female genital segment (Fig. 37).

Differential diagnosis. *Philonthus lanius* sp. nov. is similar to *P. jelineki* but it differs by the different colouring and sparser and coarser punctation of elytra and by the different shape of the aedeagus.

Distribution. Cameroon (Herman 2001).

Philonthus maculipennis Fauvel, 1903
(Figs 24–26)

Philonthus maculipannis Fauvel, 1903: 242.

Type locality. Cameroon: Gabon: Loango.

Type material studied. **Cameroon**. Holotype: ♂: "*Philonthus maculipennis*, Gabon, Fauvel, Coll. R.I.Sc.N.B. [ochre oblong label handwritten]" (IRSB). Syntype: ♀: Cameroon, *Philonthus maculipennis* Coll., et. det. A. Fauvel, R.I.Sc. N.B. 17.479 (IRSB).

Additional material studied. 6 spec. **Sierra Leone**. Western Area, Picket Hill, 1.xi.1995, W. Rossi leg. (LHPC**).**

Redescription**.** Body length 5.1 : 5.3 mm, length of fore body 2.4 : 2.6 mm. Head black, pronotum brown-black, scutellum and abdomen brown, approximately whole anterior half, suture and posterior margin narrowly yellow-brown, posterior half black-brown. Maxillary, labial palpi and

mandibles brown, antennomeres 1–2, base of antennomere 3 and posterior half of antennomere 11 yellow-brown, remaining antennomeres black-brown, femora dark brown, knee, tibiae and tarsi yellow-brown.

Head transverse, slightly narrowed posteriad, distinctly wider than long (ratio 19 : 15). Posterior angles markedly rounded, bearing two long bristles, six coarse equidistant punctures between eyes. Eyes large, longer than temples (ratio 9 : 4.5). near posterior margin four coarse punctures, arranged in a square like the four on gaming disc. Temporal area with several small punctures. Surface with very fine irregullar microsculpture.

Antennae stout, reaching almost posterior margin of pronotum when reclined, widened distally, antennomeres 1–3 and 11 longer than wide, antennomere 4 as long as wide, antennomeres 5–10 distinctly wider than long. Antennomere 1 slightly longer than antennomere 11, antennomeres 2 and 3 of the same length.

Pronotum highly convex, wider than long (ratio 23.5 : 20), distinctly narrowed anteriad. Anterior angles obtusely rounded, posterior angles markedly rounded. Each dorsal row with 6 punctures, punctures 2–5 equidistand, distance between punctures 1 and 2 and between 5 and 6 larger than distance between previous punctures. Each sublateral row with 3 coarse punctures. Microsculpture similar to that on head.

Scutellum finely punctured, punctures equal in size to eye-facets, separated less than a puncture diameter in transverse direction.

Elytra slightly longer than wide (ratio 30 : 29), slighly widened posteriad. Punctation coarse and sparse, punctures slightly larger than eye-facets, separated by one or one and half puncture diameters in transverse direction. Sides bearing many variably long black bristles, setation brown--yellow, surface between punctures without microsculpture.

Legs. Metatibia longer than metatarsus (ratio 14.5 : 13). Metatarsomere 1 as long as metatarsomere 5.

Abdomen wide, slightly gradually narrowed posteriad beginning with visible tergite II, first three visible tergites with two basal lines, elevated area between lines with a few punctures. Punctation at base of visible tergites very fine and sparse, much finer than that on elytra, gradually becoming finer and sparser towards posterior margin of each tergite. Surface between punctures without microsculpture; setation similar to that on elytra.

Male. Protarsomeres 1–3 strongly dilated and sub-bilobed, each covered with modified pale setae ventrally, protarsomere 4 distinctly narrower than preceding ones, triangular. Aedeagus (Figs 24–26).

Female. Protarsomeres 1–3 less dilated than in male, covered with modified pale setae ventrally, protarsomere 4 small.

Differential diagnosis**.** *Philonthus maculipennis* is similar to *P. cruentus*, but it differs in having the different colouring of the whole body and antennae and by the different shape of the aedeagus.

Distribution. Cameroon, Central African Republic, Gabon, Liberia, Sierra Leone (Herman 2001).

Philonthus smaragdinus Tottenham, 1949

(Figs 27–29)

Philonthus smaragdinus Tottenham, 1949: 348.

Type locality. Congo: Ituri: Blukwa.

Type material studied. **Democratic Republic of the Congo**. Holotype: ♂: "Democratic Republic of the Congo, Ituri: Blukwa, 3.ii.1929, A. Collart //*Philonthus smaragdinus* Tottenham, 1949 TYPE [ochre oblong label handwritten]" (BMNH).

Additional material studied. **Ethiopia**. 1 ♂, Bahr-Dar, 4.vi.1967, P. Štys, lgt. (LHPC).

Redescription. Body length 8.2 mm, length of fore body 3.8 mm. Head black, bluish iridescent, pronotum black, slightly purple iridescent, elytra black-brown, abdomen black, strongly red, violet and blue iridescent. Maxillary and labial palpi and mandibles brown-yellow, antennae dark brown, antennomere one slightly paler, tibiae and tarsi reddish brown, femora paler.

Head rounded, almost as long as wide, posterior angles indistinct, bearing two long black bristles. Four coarse punctures between eyes, distance between medial punctures four times as large as distance between medial and lateral puncture, medial punctures slightly shifted anteriad. Eyes as long as temples, posterior margin with two punctures, temporal area with several small and with several stronger punctures. Surface without microsculpture.

Antennae long, slightly exceeding posterior margin of pronotum, all antennomeres longer than wide. Antennomeres 2–3 equal of length.

Pronotum highly convex, as long as wide, anterior and posterior angles markedly rounded. Each dorsal row with six approximately equidistant punctures, each sublateral row with two punctures arranged in a row parallel to the dorsal row and half way between it and side. Surface with very fine and irregular microsculpture, consisting of transverse waves.

Scutellum very densely and finely punctured, diameter of punctures as large as eye-facets, separated much smaller than one puncture diameter.

Elytra wider than long (ratio 43 : 40), slightly widened posteriad. Punctation very fine and dense, diameter of punctures similar to that on scutellum, separated smaller than one puncture diameter, mostly of punctures contiguous. Surface without microsculpture; setation grey.

Legs. Metatarsus longer than metatibia (ratio 30 : 28), metatarsomere 1 distinctly longer than metatarsomere 5, slightly longer than metatarsomeres 2–3 combined.

Abdomen wide, from visible tergite 3 very gradually narrowed posteriad. First three visible tergites with two basal lines, elevated area between lines impunctate. Punctation at base of all tergites distinctly coarser than that on elytra, becoming slightly sparser towards posterior margin of each tergite. Surface without microsculpture; setation grey.

Male. Protarsomeres 1–3 strongly dilated and sub-bilobed, each covered with modified pale setae ventrally, protarsomere 4 narrower than preceding ones. Aedeagus (Figs 27–29).

Female. Unknown.

Differential diagnosis. *Philonthus smaragdinus* is similar to *P. jelineki* from which it may be distinguished by the missing of microsculpture on head, longer antennae, from *P. ischnocerus* by the slightly shorter antennae, head bluish iridescent and from both the latter by the different shape of the aedeagus.

Distribution. Democratic Republic of the Congo (Herman 2001), Ethiopia.

Philonthus synodontis **sp. nov.**
(Figs 30–32)

Type locality. Liberia, Mt. Nimba, Grassfeld.

Type material. **Liberia**. Holotype: ♂: "Liberia, Mt. Nimba, Grassfeld, 16.–25.ix.1979 //*Philonthus synodontis* spec. nov. Hromádka, det., 2010 [red oblong printed label]" (NMPC). Paratypes: 1 spec: same label data as holotype (NMPC); 1 spec., **Natal**. 16.ix.1958 (NMUK); 1 spec.; – **Sierra Leone**. Western Area, Base Picket Hill, 9.i.1997, W. Rossi (LHPC); 1 spec.; – **Uganda**. Kalanda, Med. Manure, 24.ii.1970 (NMUK).

Description**.** Body length 5.2, length of fore body 2.6 mm. Head black, pronotum and scutellum brown, elytra dark brown, posterior margin narrowly and whole elytral epipleura and legs dirty yellow, abdomen dark brown, posterior margin of all tergites narrowly red-brown, maxillary,

labial palpi and antennomeres 1–2 yellow-brown, remaining antennomeres dark brown, legs yellow, tibiae slightly darker.

Head rounded, slightly wider than long (ratio 15 : 14), four coarse punctures between eyes, distance between medial punctures four times larger than distance between medial and lateral puncture, lateral punctures slightly shifted anteriad. Eyes flat, longer than temples (ratio 7 : 6), posterior margin of eyes with two punctures. Surface with very fine microsculpture, consisting of transverse waves.

Antennae long, reaching posterior margin of pronotum when reclined, antennomeres 1–3 distinctly longer than wide, antennomeres 4–7 and 11 slightly longer than wide, antennomeres 8–10 as long as wide. Antennomere 1 twice longer than antennomere 11, antennomere 2 slightly shorter than antennomere 3.

Pronotum slightly longer than wide (ratio 20 : 18), parallel-sided. Anterior angles obtusely and posterior angles markedly rounded. Each dorsal row with five approximately equidistant punctures, each subleteral row with two punctures, puncture two shifted to the lateral margin. Surface with distinct microsculpture consisting of transverse waves.

Scutellum coarsely and densely punctured. Diameter of punctures larger than eye-facets, separated by distance smaller than one puncture diameter.

Elytra wider than long (25 : 23.5), slightly widened posteriad. Punctation coarse and dense, diameter of punctures slightly larger than that on scutellum, separated by one puncture diameter, mostly smaller. Surface without microsculpture; setation brown-yellow.

Legs. Metatibia longer than metatarsus (ratio 14 : 12), metatarsomere 1 slightly longer than metatarsomere 5, as long as metatarsomeres 2–4 combined.

Abdomen wide, from visible tergite III very gradually narrowed anteriad and posteriad. First three visible tergites with two basal lines, elevated area between lines punctate. Punctation at base of all tergites finer and denser than that on elytra, becoming sparser to the posterior margin of each tergite. Surface without microsculpture; setation similar to that on elytra.

Male. Protarsomeres 1–3 slightly dilated and sub-bilobed, each covered with modified pale setae ventrally, protarsomere 4 very small. Aedeagus (Figs 30–32).

Female. Protarsomeres 1–3 slightly less dilated than in male, each covered with modified pale setae ventrally, protarsomere 4 very small.

Differential diagnosis. *Philonthus synodontis* sp. nov. may be distinguished from the similar *P. cruentus* by the darker body, longer pronotum (ratio 20 : 18) and by the different shape of the aedeagus.

Distribution. Liberia, Natal, Sierra Leone, Uganda.

Etymology. The name of this species, a noun in apposition, is the Latin generic name of the African Upside-down catfish *Synodontis contractus* Vincigurra, 1928.

Key to species of the *Philonthus maculipennis* group

1 Each dorsal row of pronotum with four punctures. Antennomeres 1–3 and 11 testaceous, remaining antennomeres dark brown, eyes longer than temples (ratio 8 : 5). ..... ***P. kashituiensis*** Tottenham, 1949
– Each dorsal row of pronotum with five punctures. 2
– Each dorsal row of pronotum with six punctures. 3
2 Eyes longer than temples (ratio 9 : 7), pronotum black-brown, distinctly golden iridescent, femora and tibiae black, tarsi brown. ..... ***P. kigenius*** Tottenham, 1962
– Eyes distinctly longer than temples (ratio 13 : 8), pronotum brown, without golden iridescent, femora brown-yellow, tibiae black, tarsomere 1 of all tarsi black, afterward paler distally. ..... ***P. jacksoni*** (Cameron, 1950)
3 Paramere of the aedeagus divided into two short parallel branches. 4
– Paramere of the aedeagus simple, not divided. 6

4 Elytra two coloured, approximately whole anterior half, suture and posterior margin narrowly yellow-brown, posterior half black-brown, head distinctly wider than long (ratio 19 : 15), eyes twice longer than temples (ratio 2 : 1). ..... ***P. maculipennis*** Fauvel, 1903
– Elytra unicoloured. 5
5 Body yellow-brown, antennomeres 1–3 and 11 yellow, remaining antennomeres brown, pronotum wider than long (ratio 12 : 11). ..... ***P. cruentus*** Bernhauer, 1915
– Head black, pronotum and elytra brown, posterior margin of all elytra narrowly and whole elytral epipleura dirty yellow, abdomen brown, posterior margin of all visible tergites narrowly red-brown. ..... ***P. synodontis*** sp. nov.
6 Smaller species, body length 6.2–6.4 mm. 7
– Larger species, body length 8.2–8.9 mm. 8
7 Whole body, antennae and legs black, punctation of elytra very fine and very dense. ..... ***P. jelineki*** Hromádka, 2009
– Antennomere 1 yellow-brown, remaining antennomeres black-brown, elytra black, the greater part of anterior half yellow-brown. ..... ***P. lanius*** sp. nov.
8 Elytra red, suture and elytral epipleura black, head slightly longer than wide (ratio 21 : 19), abdomen distinctly green, red, violet iridescent. ..... ***P. constricticeps*** Tottenham, 1949
– Elytra otherwise coloured. 9
9 Elytra black, antennae long, exceeding posterior margin of pronotum by the length of antennomeres 1–2 when reclined, pronotum black-brown, slightly rainbow iridescent, abdomen black-brown, distinctly rainbow iridescent. ..... ***P. ischnoderus*** Cameron, 1935
– Elytra dark brown, antennae only slightly exceeding posterior margin of pronotum when reclined, pronotum black, slightly purple iridescent, abdomen black, distinctly violet-bluish iridescent. ..... ***P. smaragdinus*** Tottenham, 1949

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