

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

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**Abstract.** The *Philonthus cupreonitens* species group of the genus *Philonthus* Stephens, 1829, is defined currently as comprising 19 species. Eight species are described as new: *P. actophilornis* sp. nov. (Malawi); *P. aquila* sp. nov. (Democratic Republic of the Congo); *P. arvicanthus* sp. nov. (Democratic Republic of the Congo); *P. centropyge* sp. nov. (Ethiopia); *P. cephalopholis* sp. nov. (Democratic Republic of the Congo); *P. civettictis* sp. nov. (Democratic Republic of the Congo); *P. coris* sp. nov. (Democratic Republic of the Congo); *P. diceros* sp. nov. (Kenya). Eleven species are redescribed: *P. caedator* Tottenham, 1949, *P. congoensis* Bernhauer, 1928, *P. cupreonitens* Eppelsheim, 1895, *P. ignipennis* Tottenham, 1962, *P. mocquersyi* Fauvel, 1903, *P. ochripennis* Cameron, 1929, *P. overlaeti* Bernhauer, 1935, *P. overlaetianus* Bernhauer, 1936, *P. pervagus* Cameron, 1932, *P. recticollis* Cameron, 1947, and *P. rhodesiae* Tottenham, 1949. All species of the *P. cupreonitens* species group are keyed; the aedeagi and relevant morphological characters of all species are figured.

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

### INTRODUCTION

The genus *Philonthus* Stephens, 1829 is the largest genus within the subtribe Philonthina. It is exhaustively characterized by Smetana (1995) and contains currently more than 1,250 species, which occur in all zoogeographical regions. In the Afrotropical region it is represented by approximately 330 species divided into eight species groups defined by Tottenham (1962) and Hromádka (2008a, 2009a,b,c). The present study continues previous studies by providing a revision of the species belonging to the newly defined *P. cupreonitens* species group occurring only in the Afrotropical region. Currently there are eleven species in this species group. Eight new species from the Democratic Republic of the Congo, Ethiopia, Kenya, Nigeria and Uganda are described in this paper.

The following nineteen Afrotropical species are included in this group:

<i>Philonthus actophilornis</i> sp. nov.	Malawi;
<i>Philonthus aquila</i> sp. nov.	Democratic Republic of the Congo;
<i>Philonthus arvicanthus</i> sp. nov.	Democratic Republic of the Congo;
<i>Philonthus caedator</i> Tottenham, 1949	Democratic Republic of the Congo;
<i>Philonthus centropyge</i> sp. nov.	Ethiopia;
<i>Philonthus cephalopholis</i> sp. nov.	Democratic Republic of the Congo;
<i>Philonthus civettictis</i> sp. nov.	Democratic Republic of the Congo, Angola;
<i>Philonthus congoensis</i> Bernhauer, 1928	Democratic Republic of the Congo;
<i>Philonthus coris</i> sp. nov.	Democratic Republic of the Congo;
<i>Philonthus cupreonitens</i> Eppelsheim, 1895	Gabon, Democratic Republic of the Congo, Togo;
<i>Philonthus diceros</i> sp. nov.	Kenya;

<i>Philonthus ignipennis</i> Tottenham, 1962	Gabon;
<i>Philonthus mocquerysi</i> Fauvel, 1903	Cameroon, Gabon;
<i>Philonthus ochripennis</i> Cameron, 1929	Democratic Republic of the Congo
<i>Philonthus overlaeti</i> Bernhauer, 1935	Democratic Republic of the Congo
<i>Philonthus overlaetianus</i> Bernhauer, 1936	Democratic Republic of the Congo;
<i>Philonthus pervagus</i> Cameron, 1932	Democratic Republic of the Congo;
<i>Philonthus recticollis</i> Cameron, 1947	Democratic Republic of the Congo, Uganda;
<i>Philonthus rhodesiae</i> Tottenham, 1949	Zambia.

## MATERIAL AND METHODS

The specimens studied are deposited in the following collections:

BMNH – The Natural History Museum, London, United Kingdom (Max Barclay, Roger Booth and Martin Brendell);  
 FMNH – Field Museum of Natural History, Chicago, USA (James H. Boone);  
 IRSB – Institut royal des Science naturelles de Belgique, Bruxelles, Belgium (Yvonnick Gérard);  
 LHPC – Lubomír Hromádka collection, Praha, Czech Republic;  
 MRAT – Musée Royal de l’Afrique Centrale, Tervuren, Belgium (Marc de Meyer);  
 NHMW – Naturhistorisches Museum, Wien, Austria (Harald Schillhammer);  
 NMPC – National Museum, Praha, Czech Republic (Jiří Hájek);  
 ZMHB – Museum der Alexander Humboldt Universität, Berlin, Germany (Manfred Uhlig).

A double slash // is used to divide the separate labels of each type specimen. All measurements are of beetles with stretched abdomens. All ratios mentioned in the descriptions are dimensionless but can be converted to length in millimeters as follows: 20 units = 1 mm.

## RESULTS

### *Philonthus cupreonitens* species group

This group is best characterized by the shape of the aedeagus: median lobe of the aedeagus simple, paramere fully developed, bifurcate, symmetrical. In addition, the group may be distinguished by the following combination of external characters: moderately large to large species, body 7.9 – 14.9 mm long; head always black and wider than long, bearing 4 or 6 punctures between eyes; antennae slender and long; pronotum variably coloured, ranging from orange to brown or black in coloration; each dorsal row on pronotum with 4–6 punctures, each sublateral row on pronotum with 2 punctures; elytra slightly wider posteriorly, varying in colour from red-yellow through red-brown to brown or black; elytral punctuation of punctures of various sizes, surface without microsculpture; abdomen with three or four visible tergites with two basal lines, elevated area between lines impunctate or punctate; protarsomeres 1–3 in male strongly dilated and sub-bilobed, protarsomere 4 narrower than preceding ones, each covered with modified pale setae ventrally, female protarsomeres 1–3 less dilated than those of male.

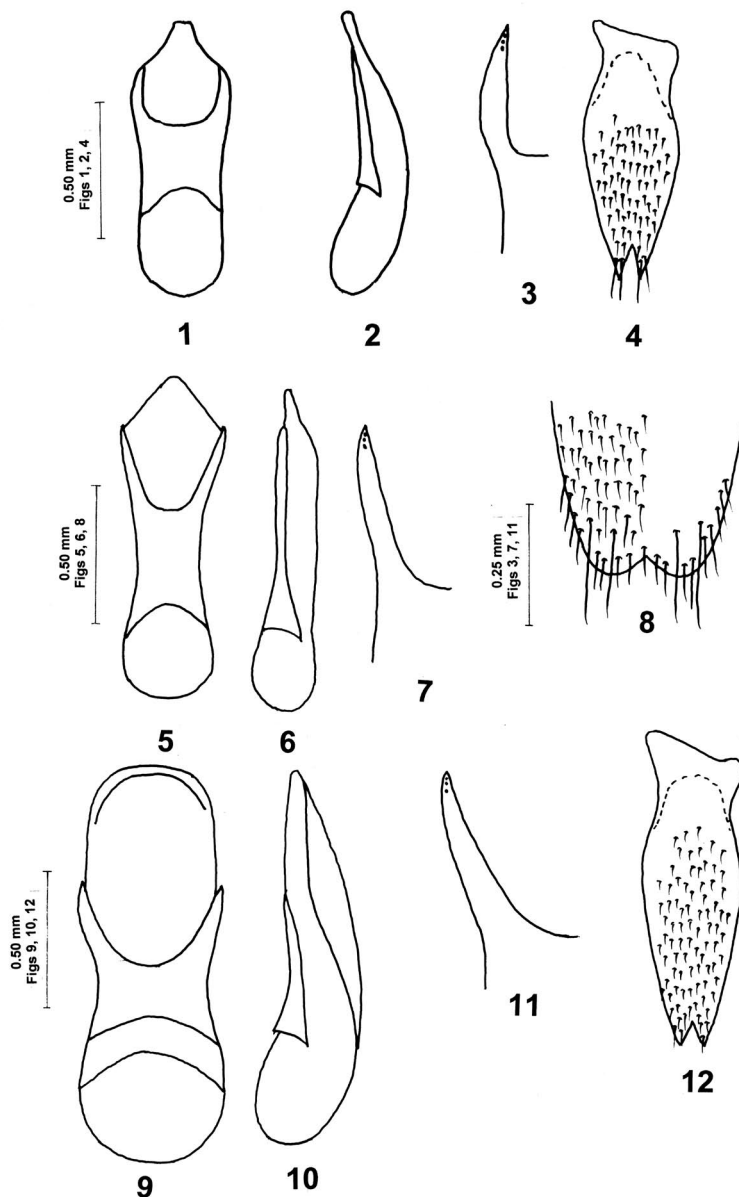
### *Philonthus actophilornis* sp. nov.

(Figs. 1–4, Fig. 77)

TYPE MATERIAL. **Holotype:** ♂, 'Malawi, S Masenjere, 30 km S of Blantyre, 21.–22.xii.2001, J. Bezděk, lgt. // Holotype, *Philonthus actophilornis* sp. nov. Hromádka, det., 2009 [red oblong printed label]' (NMPC).

TYPE LOCALITY. Malawi, S. Masenjere, 30 km S of Blantyre.

DESCRIPTION. Body length 7.9 mm, length of fore body (to end of elytra) 3.4 mm. Head black, pronotum and abdomen black-brown, elytra dark brown, maxillary and labial palpi brown-yellow, antennae and legs brown, tarsi of all legs slightly paler.



Figs. 1–12. Species of the genus *Philonthus* Stephens, 1829. 1–4 – *Philonthus actophilornis* sp. nov. 1 – aedeagus, ventral view, 2 – aedeagus, lateral view, 3 – left branch of paramere with sensory peg setae, dorsal view, 4 – male sternite IX, ventral view. 5–8 – *Philonthus aquila* sp. nov. 5 – aedeagus, ventral view, 6 – aedeagus, lateral view, 7 – left branch of paramere with sensory peg setae, dorsal view, 8 – apical portion of male sternite VIII, ventral view. 9–12 – *Philonthus arvicanthus* sp. nov. 9 – aedeagus, ventral view, 10 – aedeagus, lateral view, 11 – left branch of paramere with sensory peg setae, dorsal view, 12 – apical portion of male sternite VIII, ventral view.

Head rounded, slightly wider than long (ratio 27:24), anterior angles slightly and posterior angles markedly rounded, eyes small, distinctly shorter than temples (ratio 6.5 : 12). Between eyes 6 coarse punctures in straight line. Temporal area and area along base with several punctures. Surface without microsculpture.

Antennae slender and relatively long, reaching posterior third of pronotum when reclined. Relative length of antennomeres: 1 = 5; 2 = 3.5; 3 = 4.5; 4–9 = 3; 10 = 2.5; 11 = 4.5.

Pronotum highly convex, wider than long (ratio 31:26). Anterior angles almost rectangular, conspicuously deflexed, vaguely obtusely rounded, posterior angles markedly rounded. Each dorsal row with 5 punctures, punctures 2–4 equidistant, distance between punctures 1–2 and 4–5 greater than distance between previous punctures. Each sublateral row with 2 punctures. Surface without microsculpture.

Whole scutellum densely and finely punctured. Diameter of punctures as large as eye-facets, separated by distances equal to the transversely measured diameter of one puncture.

Elytra combined wider than long (ratio 38:34), very slightly wider posteriorly, very densely and finely punctured. Diameter of punctures slightly larger than on scutellum, punctures very close, punctures mostly contiguous; setation greyish.

Legs. Metatibia longer than metatarsus (24:21). Relative length of metatarsomeres: 1 = 6; 2 = 4; 3–4 = 3; 5 = 5.

Abdomen gradually narrows posteriorly. First three visible tergites with two basal lines, elevated area between lines impunctate. Punctuation of visible tergites much finer and denser than on elytra. Surface between punctures without microsculpture.

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

Female. Unknown.

DIFFERENTIAL DIAGNOSIS. *Philonthus actophilornis* sp. nov. is similar to *P. centropyge* sp. nov. but differs as follows: shorter eyes, darker and longer elytra, from *P. ignipennis* by the smaller number of punctures between eyes, shorter eyes. This species differs from both latter species by the shape of its aedeagus.

DISTRIBUTION. Malawi.

ETYMOLOGY. The name of this species, a noun in apposition, is the Latin generic name of the African jacana *Actophilornis africanus* (J. P. Gmelin, 1789).

### ***Philonthus aquila* sp. nov.**

(Figs. 5–8, Fig. 77)

TYPE MATERIAL. **Holotype**: ♂, 'Democratic Republic of the Congo, ['Congo Belge'], Libenge, 29.iv.1948, R. Cremer – M. Neuman // Holotype *Philonthus aquila* sp. nov. Hromádka det. 2009 [red oblong printed label]' (NMPC).

TYPE LOCALITY. Democratic Republic of the Congo ['Congo Belge'], Libenge.

DESCRIPTION. Body length 10.5 mm, length of fore body (to end of elytra) 4.9 mm. Body black, shiny, maxillary and labial palpi black, palpomere 3 slightly paler distally, antennae black, ventral side of antennomere 1 yellow-brown, dorsal side black, femora yellow-brown, tibiae black, tarsi black, slightly paler distally.

Head transverse, distinctly wider than long (ratio 46:33), very slightly narrowed posteriad, posterior angles obtusely rounded, bearing several short bristles, clypeus with a small depression medially. Eyes longer than temples (16:10). Four coarse punctures between eyes, distance between medial interocular punctures four times greater than that between medial and lateral puncture.

Posterior margin of eyes with 2 coarse punctures, from puncture 2 oblique towards middle of the posterior margin 3 coarse punctures. Surface without microsculpture.

Antennae long, antennomeres 1–3 and 11 distinctly longer than wide, remaining antennomeres only slightly longer than wide. Relative length of antennomeres: 1 = 18; 2 = 6; 3 = 8; 4–7 = 5; 8–10 = 4.5; 11 = 7.

Pronotum very convex, wider than long (ratio 43:41), anterior angles conspicuously deflexed, slightly obtusely rounded, posterior angles markedly rounded. Sides slightly rounded with several varying large bristles. Each dorsal row with 5 coarse punctures, punctures 2–4 equidistant, distance between punctures 1–2 and 4–5 slightly greater than distance between previous punctures. Each sublateral row with 2 punctures, puncture 2 distinctly shifted to the lateral margin. Surface without microsculpture.

Scutellum very densely and finely punctate. Punctures as large as an eye-facet, separated by one or one and half puncture diameters in transverse direction.

Elytra as wide as long, slightly widened posteriad, punctation fine and dense, diameter of punctures larger than eye-facets, separated by distances equivalent to one transversely measured diameter of a puncture. Surface between punctures without microsculpture; setation dark.

Legs. Metatibia longer than metatarsus (ratio 31:28), relative length of metatarsomeres: 1 = 8; 2 = 4; 3 = 3.5; 4 = 3; 5 = 8.5.

Abdomen slightly narrows from visible tergite III towards base and apex. First three visible tergites with two basal lines, elevated area between lines with several scattered punctures. Punctuation at base of all tergites coarser and denser than 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 relatively slightly dilated and sub-bilobed, each covered with modified pale setae ventrally, protarsomere 4 slightly narrower than preceding ones. Sternite VIII (Fig. 8), aedeagus (Figs. 5–7).

Female. Unknown.

DIFFERENTIAL DIAGNOSIS. *P. aquila* sp. nov can be distinguished from *P. ochripennis* by the darker elytra and legs, different colour of antennomere 1, from *P. congoensis* by the shorter eyes, different colour of antennomere 1 and differs from both latter species by the different shape of its aedeagus.

DISTRIBUTION. Democratic Republic of the Congo.

ETYMOLOGY. The name of this species, a noun in apposition, is the generic Latin name of the African Hawk-eagle *Aquila spilogaster* (Bonaparte, 1850).

### ***Philonthus arvicanthis* sp. nov.**

(Figs. 9–12, Fig. 77)

TYPE MATERIAL. **Holotype:** ♂, 'Democratic Republic of the Congo, Kundelungu 1750 m. N. P., 30.iii.1960, N. Leleup, Prairie marécageuse. Récolté dans nid de Cryptomys. // Holotype *Philonthus arvicanthis* sp. nov. Hromádka det. 2009, [red oblong printed label]' (NMPC).

TYPE LOCALITY. Kundelungu 1750 m. N.P.

DESCRIPTION. Body length 10.5 mm, length of fore body (to end of elytra) 5.1 mm. Head black, pronotum orange, elytra, abdomen and legs brown, maxillary and labial palpi yellow-brown, mandibles dark brown, antennomeres 1–2 yellow-brown, remaining antennomeres brown.

Head wider than long (ratio 37:32), parallel-sided. Posterior angles obtusely rounded, bearing 1 long black bristle. Eyes flat, as long as temples. Between eyes 6 coarse equidistant punctures,

punctures 2 and 5 slightly shifted anteriad. Posterior margin of eyes with 5 coarse punctures, arranged in a square like the five on gaming disc. Surface with very fine irregular microsculpture.

Antennae stout and short, reaching midlength of pronotum when reclined. Relative length of antennomeres: 1 = 10; 2 = 6; 3 = 7; 4 = 4.5; 5–7 = 3.5; 8–10 = 3; 11 = 8.

Pronotum very convex, hardly longer than wide (ratio 42:40). Anterior angles conspicuously deflexed, bluntly rounded, posterior angles very markedly rounded. Each dorsal row with 6 fine almost equidistant punctures, each sublateral row with 2 punctures, situated approximately halfway between dorsal rows and lateral margins. Surface with microsculpture similar to that on elytra.

Scutellum finely and sparsely punctate, punctures slightly smaller than eye-facets, separated by about one or one and half transversely measured diameters of punctures.

Elytra distinctly wider than long (ratio 57:46), slightly widened posteriad, coarsely and densely punctate, punctures slightly larger than eye-facets, separated by about one transversely measured diameter of a puncture. Surface without microsculpture; setation yellowish

Legs. Metatibia as long as metatarsus, relative length of metatarsomeres: 1 = 10; 2 = 5; 3 = 4; 4 = 3; 5 = 9.

Abdomen slightly narrows from visible tergite III towards base and apex. First four visible tergites with two basal lines, elevated area between lines impunctate. Remaining surface of tergites finely and rather sparingly punctate, finer and denser than on elytra, setation of the same colour as on elytra. Surface between punctures without microsculpture.

Male. Protarsomeres 1–3 relatively slightly dilated and sub-bilobed, each covered with modified pale setae ventrally, protarsomere 4 narrower than preceding ones. Sternite VIII (Fig. 12), aedeagus (Figs. 9–11).

Female. Unknown.

DIFFERENTIAL DIAGNOSIS. *P. arvicanthis* sp. nov. may be distinguished from the similar *P. recticollis* by the shorter eyes and antennae, paler antennomeres 1–2 and pronotum, from *P. pervagus* by the paler pronotum, wider elytra and from both of the latter by the different shape of its aedeagus.

DISTRIBUTION. Democratic Republic of the Congo.

ETYMOLOGY. The name of this species, a noun in apposition, is the Latin generic name of the African Grass Rat *Arvicanthus niloticus* (Geoffrey, 1803).

### ***Philonthus recticollis* Cameron, 1947**

(Figs. 13–15, Fig. 77)

*Philonthus recticollis* Cameron, 1947: 2.

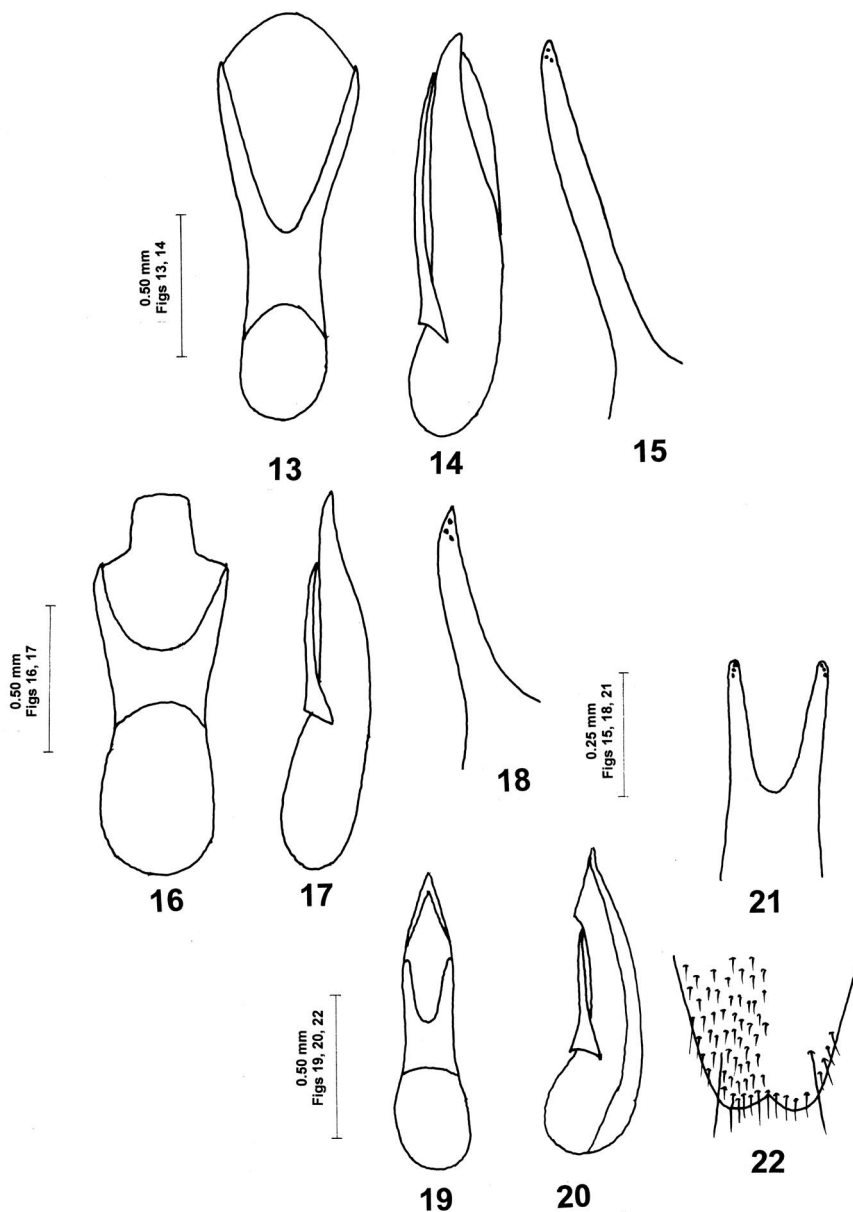
TYPE MATERIAL. **Holotype**: ♂, 'Democratic Republic of the Congo [Congo Belge], Nizi: Blukwa, 30.xii.1928, A. Collart // *Philonthus recticollis* Cameron TYPE, [ochre oblong label handwritten]' (IRSB).

ADDITIONAL MATERIAL EXAMINED. 1 spec., m\*, Uganda, Mt. Egon, 6.vii.1934, J. Ford, short vegetation, Butandiga 7.000 ft. (LHPC).

TYPE LOCALITY. Nizi: Blukwa.

REDESCRIPTION. Body length 8.4 mm, length of fore body (to end of elytra) 3.8 mm. Head, elytra and abdomen black, pronotum black-brown, maxillary and labial palpi brown, antennae black, femora brown-yellow, tibiae and tarsi dark brown.

Head transverse, wider than long (ratio 31.5:24), very slightly narrowed posteriad. Posterior angles obtusely rounded, bearing 2 long black bristles. Eyes a little convex, longer than temples (ratio 10:7). Between eyes 4 coarse punctures, distance between medial interocular punctures 4 times as long as distance between medial and lateral puncture. Posterior margin of eyes with



Figs. 13–22. Species of the genus *Philonthus* Stephens, 1829. 13–15 – *Philonthus atherurus* sp. nov. 13 – aedeagus, ventral view, 14 – aedeagus, lateral view, 15 – left branch of paramere with sensory peg setae, dorsal view. 16–18 – *Philonthus caedator* Tottenham, 1949. 16 – aedeagus, ventral view, 17 – aedeagus, lateral view, 18 – left branch of paramere with sensory peg setae, dorsal view. 19–22 – *Philonthus centropyge* sp. nov.: 19 – aedeagus, ventral view, 20 – aedeagus, lateral view, 21 – left branch of paramere with sensory peg setae, dorsal view, 22 – apical portion of male sternite VIII, ventral view.

3 coarse punctures. Temporal area with many varying large punctures, from temples towards the middle of posterior half of head several scattered punctures. Surface without microsculpture.

Antennae slender and long, all antennomeres longer than wide, exceeding posterior margin of pronotum by the length of antennomere 11 when reclined. Relative length of antennomeres: 1 = 8; 2–3 = 6; 4–5 = 5; 6 = 4.5; 7–10 = 4; 11 = 6.

Pronotum as long as wide, parallel-sided, anterior angles almost rectangular, bearing several short bristles, posterior angles markedly rounded. Sides with 3 long black bristles. Each dorsal row with 5 punctures, each sublateral row with 2 punctures, puncture 2 distinctly shifted to the lateral margin. Surface without microsculpture.

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

Elytra wider than long (ratio 50:40), slightly widened posteriad. Anterior angles bearing 1 long black bristle. Punctuation coarse and relatively sparse, punctures as large as those on scutellum, separated by distances of one or one and half puncture diameters. Surface without microsculpture; setation dark.

Legs. Metatibia longer than metatarsus (ratio 34:32), relative length of metatarsomeres: 1 = 11; 2 = 5; 3–4 = 4; 5 = 9.

Abdomen wide, from visible tergite III gradually narrows posteriorly. First three visible tergites with two basal lines, elevated area between lines densely and coarsely punctate. Punctuation of visible tergites finer and denser than on elytra, becoming sparser and finer towards posterior margin of each tergite; setation similar to that on elytra.

Male. Protarsomeres 1–3 distinctly dilated and sub-bilobed, each covered with modified pale setae ventrally, protarsomere 4 distinctly narrower than preceding ones. Aedeagus (Figs. 13–15).

Female. Unknown.

DIFFERENTIAL DIAGNOSIS. *P. recticollis* may be distinguished from the similar *P. arvicantis* sp. nov. by the longer eyes and antennae, darker antennomeres 1–2 and pronotum, from *P. pervagus* by the wider pronotum and elytra, longer branches of paramere, and from both by the different shape of its aedeagus.

DISTRIBUTION. Democratic Republic of the Congo (Herman 1991). Uganda.

### *Philonthus caedator* Tottenham, 1949 (Figs. 16–18, Fig. 77)

*Philonthus caedator* Tottenham, 1949: 337.

TYPE MATERIAL. **Holotype**: ♂, 'Democratic Republic of the Congo, Haut-Uele: Watsa, ix.1919, L. Burgeon // *Philonthus caedator* Tottenham TYPE [yellow square label, handwritten]' (MRAT).

TYPE LOCALITY. Haut-Uele: Watsa.

REDESCRIPTION. Body length 9.6 mm, length of fore body (to end of elytra) 4.5 mm. Head black, pronotum, scutellum, elytra and abdomen black-brown, head and pronotum with pyrole-greenish reflection. Maxillary, labial palpi and mandibles yellow-brown, antennomere 1 red-brown, remaining antennomeres brown-black, legs brown-yellow, tibiae slightly darker.

Head slightly wider than long (ratio 35:29), slightly narrows posteriad, posterior angles obtusely rounded, bearing 2 long and several short black bristles. Three coarse punctures on posterior margin of each eye. Eyes longer than temples (ratio 14:10). Four punctures between eyes, distance between medial interocular punctures about four times greater than distance between medial and

lateral interocular puncture, medial punctures slightly shifted anteriad. Temporal area with many, varying large punctures. Surface with very fine, hardly appreciable microsculpture.

Antennae long, reaching posterior fifth of pronotum when reclined. Antennomeres 1–3 and 11 longer than wide, antennomeres 4–5 as long as wide, antennomere 10 wider than long. Relative length of antennomeres: 1 = 10; 2 = 6; 3 = 7; 4–10 = 4; 11 = 8.

Pronotum very convex, wider than long (ratio 39:36), anterior angles conspicuously deflexed, slightly obtusely rounded, sides arch-shaped, narrows anteriorly. Each dorsal row with 5 coarse punctures, punctures 1–4 equidistant, separation between punctures 4 and 5 slightly greater than between punctures 1–4, separation of puncture 5 from posterior margin of pronotum as great as the length of antennomere 1. Each sublateral row with 2 coarse punctures, puncture 2 distinctly shifted to the lateral margin. Microsculpture similar to that on head.

Scutellum very densely and coarsely punctate, punctures larger than eye-facets, separation between punctures smaller than the diameter of one puncture.

Elytra wider than long (ratio 49:42), slightly wider posteriorly, punctation slightly finer than on scutellum, surface without microsculpture; setation greyish.

Legs. Metatibia longer than metatarsus (ratio 29:24) relative length of metatarsomeres: 1 = 8; 2 = 3; 3–4 = 2; 5 = 6.

Abdomen from visible tergite III slightly narrows anteriorly and posteriorly. First three visible tergites with two basal lines, elevated area between lines densely and relatively coarsely punctate. Punctuation at base of all tergites coarser than on elytra, becoming slightly finer and sparser towards posterior margin of each tergite. Surface without microsculpture; setation similar to 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. Aedeagus (Figs. 16–18).

Female. Unknown.

DIFFERENTIAL DIAGNOSIS. *P. caedator* is in habitus similar to *P. coris* sp. nov. from which it may be distinguished by the narrower head, shorter antennae, purple-greenish reflection of head and pronotum and the different shape of its aedeagus,

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

### ***Philonthus centropyge* sp. nov.**

(Figs. 19–22, Fig. 77)

TYPE MATERIAL. **Holotype:** ♂, 'Ethiopia, Addis Ababa, 10.iiv.1946, from excreta in burrows of mole-rat (*Tachyoryctes* sp.)  
// HOLOTYPE, *Philonthus centropyge* sp. nov. Hromádka det. 2009 [red oblong printed label]' (NMPC).

TYPE LOCALITY. Ethiopia, Addis Ababa.

DESCRIPTION. Body length 7.8 mm, length of fore body (to end of elytra) 3.9 mm. Head black, pronotum and scutellum black-brown, elytra red-brown, suture slightly darker, abdomen black, posterior margin of all tergites slightly red-brown. Maxillary and labial palpi brown-yellow, apex of palpomere 3 of both palpies slightly paler distally, mandibles brown. Antennae black, base of antennomere 2 yellow-brown. Femora and tibiae black-brown, all tarsi slightly paler distally.

Head rounded quadrangular, slightly wider than long (ratio 27:23), posterior angles conspicuously rounded, bearing 1 long black bristle. Between eyes 6 equidistant fine punctures, arranged in a straight line. Eyes vaguely shorter than temples (ratio 9:10), posterior margin of each eye with 2 coarse punctures. Temporal area with 1 coarse puncture and several smaller punctures, area along base with several small punctures. Surface with transverse and oblique patches of microsculpture.

Antennae short and stout, antennomeres 1–3 and 11 longer than wide, antennomeres 4–5 as long as wide, antennomeres 6–10 slightly serrate. Relative length of antennomeres: 1 = 7; 2 = 4.5; 3 = 4; 4–10 = 3; 11 = 5.5.

Pronotum very convex, wider than long (ratio 36 : 30), distinctly narrows anteriorly, anterior angles almost rectangular, conspicuously deflexed, slightly obtusely rounded. Left dorsal row with 4 punctures, right row with 5 punctures, separation between punctures very irregular. Each sublateral row with 2 punctures, puncture 2 distinctly shifted to the lateral margin. Surface with microsculpture similar to that on head.

Scutellum very densely and coarsely punctate, diameter of punctures somewhat larger than eye-facets, separated by distances smaller than one puncture diameter. Surface with distinct microsculpture; setation dark.

Elytra almost quadrate, parallel-sided, very densely and finely punctate. Punctures as large as eye-facets, separated by distances mostly smaller than the diameter of punctures. Surface without microsculpture; setation yellowish.

Legs. Metatarsus as long as metatibia, relative length of metatarsomeres: 1 = 7; 2 = 5; 3 = 4; 4 = 3; 5 = 7.

Abdomen wide, parallel-sided, first four visible tergites with two basal lines, elevated area between lines densely and coarsely punctate. Punctuation on visible tergites very fine and dense, diameter of punctures smaller than eye-facets, distance between punctures very small, only a narrow part of the posterior margin of all tergites sparsely punctured. Surface between punctures without microsculpture; setation similar to that on head.

Male. Protarsomeres 1–3 markedly dilated and sub-bilobed, each covered with modified pale setae ventrally, protarsomere 4 narrower than preceding ones, heart-shaped. Sternite VIII (Fig. 22), aedeagus (Figs. 19–21).

Female. Unknown.

DIFFERENTIAL DIAGNOSIS. *Philonthus centropyge* sp. nov. may be distinguished from similar *P. ignipennis* by the greater number of punctures between eyes, paler elytra, from *P. actophilornis* sp. nov. by the longer eyes, paler and shorter elytra. It differs from both species in the shape of its aedeagus.

DISTRIBUTION. Ethiopia.

ETYMOLOGY. The name of this species, a noun in apposition, is the Latin generic name of the African Flameback Angelfish *Centropyge acanthops* (Norman, 1922).

### ***Philonthus cephalopholis* sp. nov.**

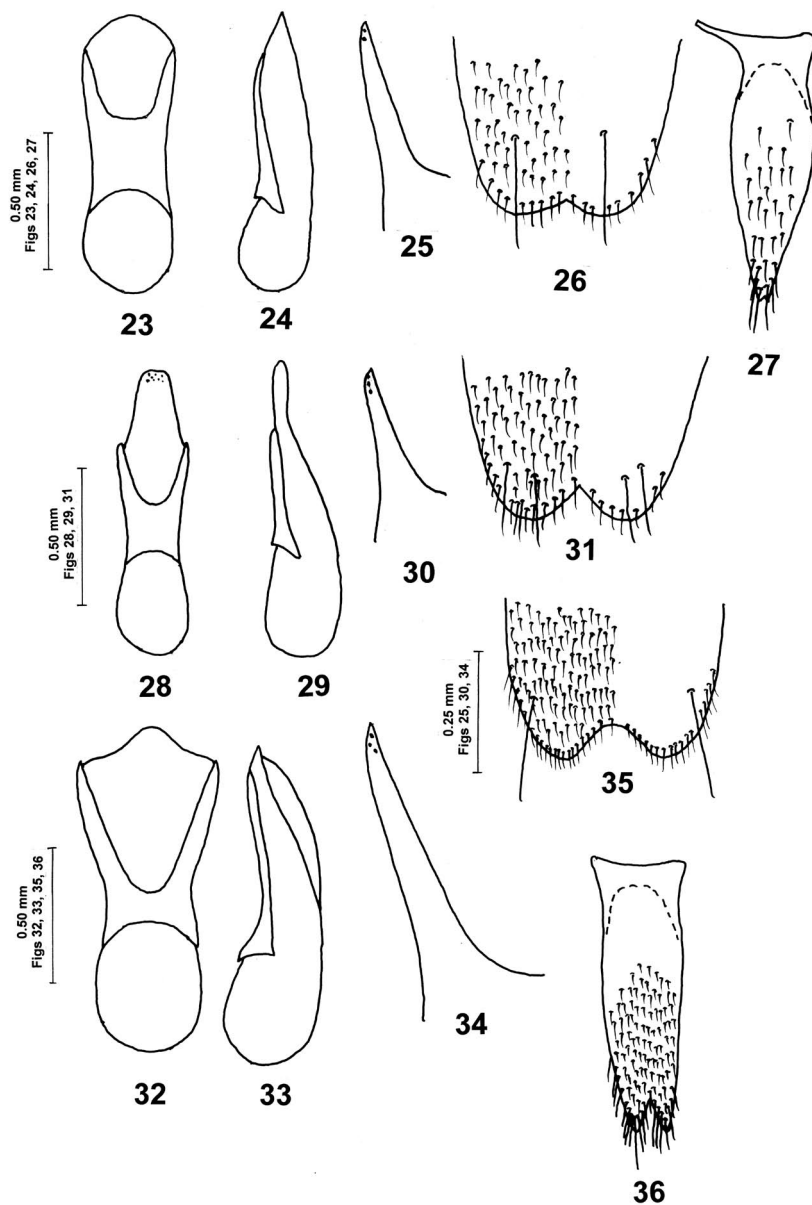
(Figs. 23–27, Fig. 77)

TYPE MATERIAL. **Holotype:** ♂, 'Democratic Republic of the Congo, Kivu: Mulungu – Tshibinda, xi.1951, P. C. Lefèvre // HOLOTYPE *Philonthus cephalopholis* sp. nov. Hromádka det. 2009 [red oblong printed label]' (NMPC).

TYPE LOCALITY. Kivu: Mulungu – Tshibinda.

DESCRIPTION. Body length 8.1 mm, length of fore body (to end of elytra) 4.2 mm. Whole body and antennae black, maxillary and labial palpi black-brown, mandibles and femora brown-black, tibiae and tarsi black-brown.

Head transverse, wider than long (ratio 37:25), hardly narrows posteriorly, posterior angles rounded, bearing one black bristle, eyes flat, longer than temples (ratio 11:8). Posterior margin of eyes each with 4 very coarse punctures. Between eyes 4 coarse punctures, distance between medial interocular punctures about 4 times distance between medial and lateral punctures. Medial



Figs. 23–36. Species of the genus *Philonthus* Stephens, 1829. 23–27 – *Philonthus cephalopholis* sp. nov. 23 – aedeagus, ventral view, 24 – aedeagus, lateral view, 25 – left branch of paramere with sensory peg setae, dorsal view, 26 – apical portion of male sternite VIII, ventral view, 27 – male sternite IX, ventral view. 28–31 – *Philonthus civettictis* sp. nov. 28 – aedeagus, ventral view, 29 – aedeagus, lateral view, 30 – left branch of paramere with sensory peg setae, dorsal view, 31 – apical portion of male sternite VIII, ventral view. 32–36 – *Philonthus congoensis* Bernhauer, 1928. 32 – aedeagus, ventral view, 33 – aedeagus, lateral view, 34 – left branch of paramere with sensory peg setae, dorsal view, 35 – apical portion of male sternite VIII, ventral view, 36 – male sternite IX, ventral view.

punctures distinctly shifted anteriorly. Temporal area with 2 black setiferous coarse punctures and with several smaller grey setiferous punctures. Surface with very fine irregular microsculpture.

Antennae long, widened distally, reaching posterior margin of pronotum when reclined. Relative length of antennomeres: 1 = 10; 2 = 4.5; 3 = 5; 4–7 = 4; 8–10 = 3.5; 11 = 6.

Pronotum wider than long (ratio 38:35). Sides slightly rounded, anterior angles conspicuously deflexed, almost rectangular, vaguely obtusely rounded, with several variably long black bristles, posterior angles markedly rounded. Each dorsal row with 5 coarse punctures, punctures 2–4 equidistant, distance between punctures 1 and 2 and between punctures 4 and 5, as long as the length of antennomere 1. Each sublateral row with 2 fine punctures, puncture 2 distinctly shifted to the lateral margin. Surface with microsculpture similar to that on head.

Scutellum very coarsely and densely punctured, punctures somewhat larger than eye-facets, distance between punctures smaller than one puncture diameter; setation dark.

Elytra wider than long (ratio 49:43), slightly widened posteriorly. Punctuation very fine and dense, punctures smaller than on scutellum, separated by one puncture diameter or slightly smaller. Surface without microsculpture; setation brown.

Legs. Metatibia longer than metatarsus (ratio 24:21), relative length of metatarsomeres: 1 = 7; 2 = 3; 3 = 2; 4 = 1.5; 5 = 5.

Abdomen wide, very gradually narrows posteriorly, first four visible tergites with two basal lines, elevated area between lines coarsely and densely punctate. Punctuation on visible tergites coarser than on elytra, becoming sparser towards posterior margin of each tergite. Surface without microsculpture; setation except on middle of all visible tergites long and brown.

Male. Protarsomeres 1–3 relatively slightly dilated and sub-bilobed, each covered with modified pale setae ventrally, protarsomere 4 distinctly narrower than preceding ones. Sternite VIII (Fig. 26), sternite IX (Fig. 27), aedeagus (Figs. 23–25).

Female. Unknown.

DIFFERENTIAL DIAGNOSIS. *P. cephalopholis* sp. nov. may be distinguished from *P. overlaetianus* by its narrower head, slightly longer antennae and the different shape of its aedeagus.

DISTRIBUTION Democratic Republic of the Congo.

ETYMOLOGY. The name of this species, a noun in apposition, is the Latin generic name of the African hind *Cephalopholis taneiops* (Valenciennes, 1928).

### ***Philonthus civettictis* sp. nov.**

(Figs. 28–31, Fig. 77)

TYPE MATERIAL. **Holotype**: ♂, 'Democratic Republic of the Congo, Lulua – Kapanga, iii.1933, F. G. Overlaet // *Philonthus civettictis* sp. nov., Hromádka det, 2009 [red oblong printed label]' (MRAT). **Paratypes**: 3 spec., same data as in holotype (LHPC, MRAT), ANGOLA: 1 spec., m\*, Rio Longs, 4 mls S. Lussusso, 8.iii.1972 (LHPC).

TYPE LOCALITY. Lulua – Kapanga.

DESCRIPTION. Body length 10.5–10.8 mm, length of fore body (to end of elytra) 5.8–6.1 mm. Head, scutellum, elytra and abdomen black, pronotum black-brown, maxillary, labial palpi and mandibles brown-yellow, antennomeres 1–2 and base of antennomere 3 brown, remaining antennomeres black-brown. Femora and tarsi brown, tibiae darker. Head and pronotum with slight brown-golden reflection, elytra with copper shine.

Head slightly transverse, wider than long (ratio 46:31), very slightly narrows posteriorly. Posterior angles rounded, bearing one long black bristle. Between eyes 4 coarse punctures, distance between medial interocular punctures about four times that between medial and lateral punctures, medial punctures slightly shifted anteriorly. Eyes flat, longer than temples (ratio 16:10.5). Posterior

margin with several coarse punctures, temporal area with two long setiferous punctures. Surface without microsculpture.

Antennae stout and long, reaching posterior sixth of pronotum when reclined. Relative length of antennomeres: 1 = 13; 2 = 8; 3 = 9; 4–7 = 5; 8–9 = 4.5; 10 = 4; 11 = 9.

Pronotum wider than long (ratio 46:41), widest at about one-third of its length, anterior angles rectangular, conspicuously deflexed, very slightly obtusely rounded, posterior angles markedly rounded. Each dorsal row with 5 coarse punctures, punctures 2–4 equidistant, distance between punctures 1 and 2 slightly greater, distance between punctures 4–5 as long as the length of antennomere 2. Each sublateral row with 2 punctures, puncture 2 distinctly shifted to the lateral margin. Surface without microsculpture.

Scutellum very densely and coarsely punctate. Punctures larger than eye-facets, distance between punctures smaller than one puncture diameter.

Elytra longer than wide (ratio 60:56), slightly wider posteriorly. Punctuation very fine and dense, punctures slightly larger than eye-facets, separated by one or one and half puncture diameters. Surface between punctures without microsculpture, sides bearing many long dark bristles; setation long and dark.

Legs. Metatibia as long as metatarsus, relative length of metatarsomeres: 1 = 10; 2 = 5; 3–4 = 4; 5 = 9.

Abdomen wide, from visible tergite III very slightly narrows posteriorly. First three visible tergites with two basal lines, elevated area between lines coarsely and densely punctate. Punctuation at base of all tergites coarser and denser than on elytra, gradually becoming finer and sparser towards 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 narrower than preceding ones. Sternite VIII (Fig. 31), aedeagus (Figs. 28–30).

Female. Unknown.

DIFFERENTIAL DIAGNOSIS. *P. civettictis* sp. nov. is similar to *P. cupreonitens*, but differs in having longer antennae and pronotum, and in the shape of its aedeagus.

DISTRIBUTION. Democratic Republic of the Congo, Angola.

ETYMOLOGY. The name of this new species, a noun in apposition, is the Latin generic name of the African Civet *Civettictis civetta* (Schreber, 1776).

### ***Philonthus congoensis* Bernhauer, 1928**

(Figs. 32–36, Fig. 77)

*Philonthus congoensis* Bernhauer, 1928: 110.

TYPE MATERIAL. **Holotype**: ♂, 'Democratic Republic of the Congo, Haut-Uele: Moto, xi.1922, L. Burgeon, Musée Congo // *Philonthus congoensis* Bernhauer, TYPE [ochre oblong label handwritten], Chicago NHMus. M. Bernhauer collection' (FMNH).

TYPE LOCALITY. Haut-Uele: Moto, ['Belgisch Kongo'].

REDESCRIPTION. Body length 9.2 mm, length of fore body (to end of elytra) 4.9 mm. Head, pronotum and abdomen black, elytra anthracite black, palpomeres 1–2 brown-yellow, palpomere 3 yellow-brown, mandibles brown. Antennomeres 1, 10–11 and base of antennomere 3 yellow-brown, remaining antennomeres and legs black.

Head transverse, wider than long (ratio 35:28), parallel-sided, posterior angles markedly rounded, bearing one long setiferous black bristle. Eyes slightly convex, shorter than temples (ratio

10:12). Between eyes 4 coarse punctures, distance between medial interocular punctures 3 times greater than distance between medial and lateral punctures. Posterior margin of eyes with 3 coarse punctures arranged in the form of a letter L. Surface with very fine microsculpture.

Antennae long, reaching posterior fifth of pronotum when reclined. Antennomeres 1–3 and 11 longer than wide, antennomeres 4–6 as long as wide, antennomeres 7–10 slightly wider than long. Relative length of antennomeres: 1 = 10; 2 = 5; 3 = 6; 4 = 4.5; 5–6 = 4; 7 = 3.5; 8–10 = 3; 11 = 5.5.

Pronotum wider than long (ratio 34:32), very convex in the middle, slightly narrows posteriorly, anterior angles almost rectangular, with several short bristles, posterior angles markedly rounded. Each dorsal row with 5 coarse punctures, punctures 2–4 equidistant, distance between punctures 1–2 and 4–5 greater than between previous punctures. Each sublateral row with 2 punctures. Sides bearing several long bristles varying length, anterior third bearing one long black bristle. Surface with very fine microsculpture.

Scutellum densely and finely punctate, punctures smaller than eye-facets, distance between punctures greater than diameter of punctures.

Elytra wider than long (ratio 46:43), slightly wider posteriorly, very finely and sparsely punctate, punctures smaller than eye-facets, separated by two or three puncture diameters. Setation on sides long and dark. Surface very shiny, without microsculpture.

Legs. Metatarsus as long as metatibia, relative length of metatarsomeres: 1 = 6; 2 = 4; 3–4 = 3.5; 5 = 7.

Abdomen from visible tergite III slightly narrows anteriorly and posteriorly. First three visible tergites with two basal lines, elevated area between lines with several punctures. Punctuation on tergites finer and denser than on elytra. Surface without microsculpture; setation dark.

Male. Protarsomeres 1–3 strongly dilated and sub-bilobed, each covered with modified pale setae ventrally, protarsomere 4 narrower than preceding ones. Sternite VIII (Fig. 35), sternite IX (Fig. 36), aedeagus (Figs. 32–34).

Female. Unknown.

DIFFERENTIAL DIAGNOSIS. *P. congoensis* may be distinguished from *P. aquila* sp. nov. by its longer eyes, different coloured antennomere 1, from *P. ochripennis* by its shorter eyes and darker elytra. This species differs from both in the shape of its aedeagus.

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

### ***Philonthus coris* sp. nov.**

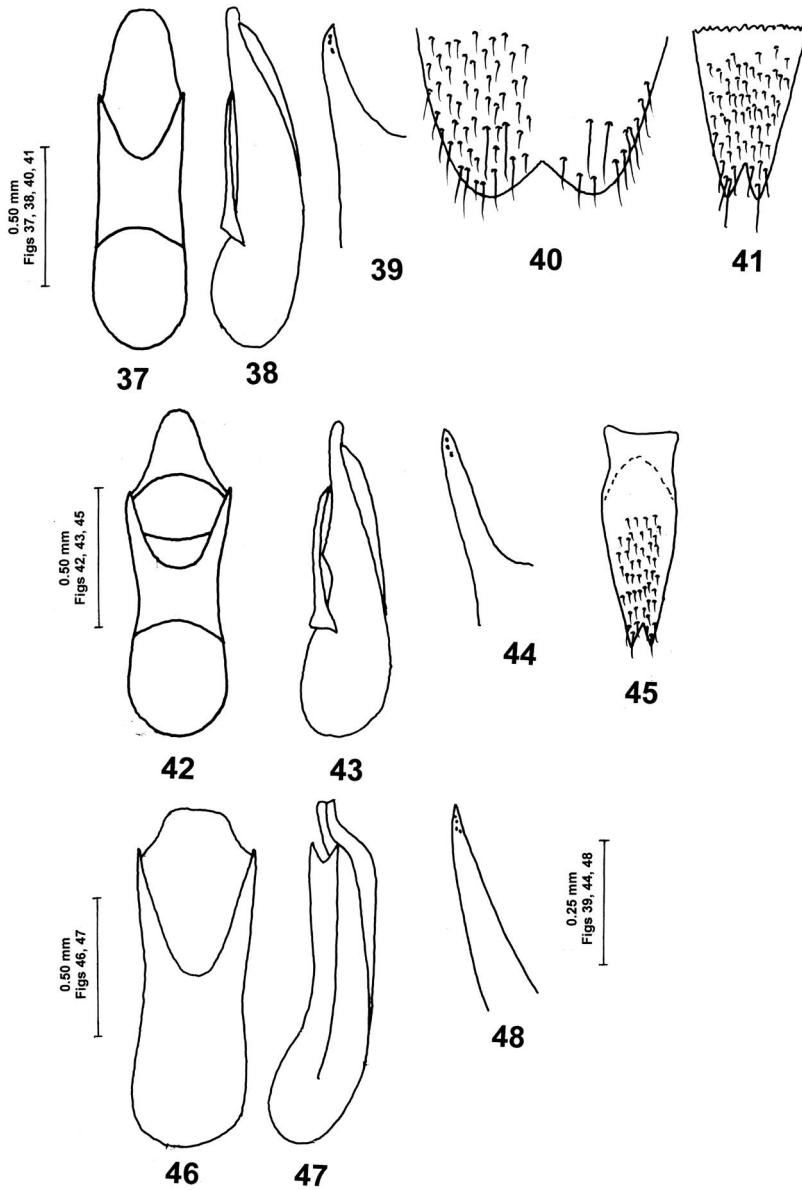
(Figs. 37–41, Fig. 77)

TYPE MATERIAL. **Holotype:** ♂, 'Democratic Republic of the Congo, Eduard Vitshumbi ['Congo Belge'], //Holotype *Philonthus coris* sp. nov. Hromádka det., 2009) [red oblong printed label]' (NMPC).

TYPE LOCALITY: Eduard Vitshumbi ['Congo Belge'].

DESCRIPTION. Body length 9.2 mm, length of fore body (to end of elytra) 4.6 mm. Head black, pronotum, scutellum, elytra and abdomen black- brown, mandibles, maxillary, labial palpi and antennomeres 1–2 brown-yellow, remaining antennomeres dark brown. Femora, knee and tarsi yellow-brown, tibiae dark brown.

Head transverse, wider than long (ratio 37:29), narrows posteriorly, Posterior angles bearing 1 long black bristle. Four coarse punctures between eyes, distance between medial interocular punctures about four times greater than the distance between medial and lateral punctures. Medial punctures shifted anteriorly. Eyes large, slightly convex, distinctly longer than temples (ratio



Figs. 37–48. Species of the genus *Philonthus* Stephens, 1829. 37–41 – *Philonthus coris* sp. nov. 37 – aedeagus, ventral view, 38 – aedeagus, lateral view, 39 – left branch of paramere with sensory peg setae, dorsal view, 40 – apical portion of male sternite VIII, ventral view, 41 – male sternite IX, ventral view. 42–45 – *Philonthus cupreonitens* Eppelsheim, 1895. 42 – aedeagus, ventral view, 43 – aedeagus, lateral view, 44 – left branch of paramere with sensory peg setae, dorsal view, 45 – male sternite IX, ventral view. 46–48 – *Philonthus ignipennis* Tottenham, 1962. 46 – aedeagus, ventral view, 47 – aedeagus, lateral view, 48 – left branch of paramere with sensory peg setae, dorsal view.

13:8.5), around posterior margin of each eye 3 coarse punctures, temporal area almost impunctate. Surface without microsculpture.

Antennae slender and long, reaching posterior margin of pronotum when reclined. Relative length of antennomeres: 1 = 11 ; 2 = 6; 3 = 7; 4–7 = 4; 8–9 = 3.5; 10 = 3; 11 = 5.

Pronotum wider than long (ratio 38:35), anterior angles conspicuously deflexed, vaguely obtusely rounded, bearing 3 long black bristles, posterior angles markedly rounded. Sides slightly rounded, with 1 long black bristle on anterior third. Each dorsal row with 5 punctures, punctures 1–4 equidistant, distance between punctures 4–5 equal to the length of antennomere 1. Each sub-lateral row with 2 punctures, puncture 2 shifted to the lateral margin. Surface without microsculpture.

Scutellum very densely and very coarsely punctured. Punctures larger than eye-facets, punctures mostly coalescent.

Elytra quadrate, wider than long (ratio 49:44), slightly wider posteriorly. Punctuation fine and dense, diameter of punctures larger than eye-facets, separated by one puncture diameter or slightly less. Surface without microsculpture; setation testaceous.

Legs. Metatibia longer than metatarsus (ratio 29:27), relative length of metatarsomeres: 1 = 8.5; 2 = 4; 3 = 2.5; 4 = 2; 5 = 7.

Abdomen wide, from visible tergite III very slightly narrows posteriorly. First three visible tergites with two basal lines, elevated area between lines densely and coarsely punctate. Base of all tergites more coarsely punctate than elytra, becoming sparser towards posterior margin of each tergite. Surface without microsculpture; setation similar to that on elytra.

Male. Protarsomeres 1–3 not strongly dilated and sub-bilobed, each covered with modified pale setae ventrally, protarsomere 4 slightly smaller than preceding ones. Sternite VIII (Fig. 40), sternite IX (Fig. 41), aedeagus (Figs. 37–39).

Female. Unknown

DIFFERENTIAL DIAGNOSIS. *Philonthus coris* sp. nov. may be distinguished from the similar *P. cae-dator* by its wider head, longer antennae, head and pronotum without coloured reflection and the different shape of its aedeagus.

DISTRIBUTION. Democratic Republic of the Congo.

ETYMOLOGY. The name of this species, a noun in apposition, is the Latin generic name of the African Cuviers Coris Wrasse *Coris cuvieri* (Bennett, 1829).

***Philonthus cupreonitens* Eppelsheim, 1895**  
(Figs. 42–45, Fig. 78)

*Philonthus cupreonitens* Eppelsheim 1895: 125.

TYPE MATERIAL. **Holotype:** ♂, // 'Togo land, C Eppelsheim' (NHMW).

ADDITIONAL MATERIAL EXAMINED. Liberia, 1 spec m\*, Mt. Nimba, Grassfield, 16.–25.ix.1979, lowland forest 500m, in human faeces. (LHPC).

TYPE LOCALITY. Gabon.

REDESCRIPTION. Body length 11.5 mm, length of fore body (to end of elytra) 5.3 mm. Body black, head and pronotum with dark metallic reflection, elytra with golden-green copper shine, maxillary and labial palpi brown-yellow, antennomeres 1–2 brown, remaining antennomeres black, legs pitch brown, inner side of metatibia darker

Head transverse, distinctly wider than long (ratio 44:31), slightly narrower posteriorly, posterior angles conspicuously rounded bearing 1 long and several shorter black bristles. Eyes slightly convex, longer than temples (ratio 15:10), six very coarse punctures around the posterior margin of eyes. Between eyes four coarse punctures arranged in a straight line, distance between medial

interocular punctures about four times that between the medial and lateral interocular punctures. Temporal area with 1 coarse setiferous puncture. Surface without microsculpture.

Antennae stout, hardly widened distally, reaching posterior fourth of pronotum when reclined. Relative length of antennomeres. 1 = 15; 2 = 6; 3 = 8; 4–10 = 4; 11 = 6.

Pronotum wider than long (ratio 43:40), widest in anterior third, anterior angles conspicuously deflexed, vaguely obtusely rounded, almost rectangular, posterior angles markedly rounded. Each dorsal row with 5 coarse punctures, punctures 1–4 equidistant, distance between punctures 4–5 slightly greater. Each sublateral row with 2 punctures, puncture 2 hardly shifted to the lateral margin. Surface without microsculpture.

Scutellum very densely and finely punctate, punctures as large as eye-facets, separation between punctures less than one puncture diameter.

Elytra quadrate, slightly wider than long (ratio 55:51), punctuation coarse and dense, punctures larger than eye-facets, separated by one puncture diameter or slightly less. Surface between punctures without microsculpture. Sides with several variably long black-brown bristles; setation black-brown.

Legs. Metatarsus longer than metatibia (ratio 28:26), relative length of metatarsomeres: 1 = 8; 2 = 5; 3 = 4; 4 = 3; 5 = 8.5.

Abdomen from visible tergite III very slightly narrows anteriorly and posteriorly. First four visible tergites with two basal lines, elevated area between lines with scattered punctures. Punctuation at base of all visible tergites coarser and denser than on elytra, gradually becoming sparser and finer towards posterior margin of each tergite. Surface without microsculpture; setation similar to 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. 45), aedeagus (Figs. 42–44).

Female. Unknown.

DIFFERENTIAL DIAGNOSIS. *P. cupreonites* is similar to *P. civettictis* sp. nov., but differs in having shorter antennae and pronotum and in the shape of its aedeagus.

DISTRIBUTION. Gabon, Cameroon, Democratic Republic of the Congo, Togo (Herman, 2001), Liberia.

### ***Philonthus diceros* sp.n.**

(Figs. 62–65, Fig. 78)

TYPE MATERIAL. **Holotype:** ♂, 'KENYA – Western, Kakamega Forest N.R., prim. Forest, 1600m, 0.21, 34N/34.51, 39E, 18.ix.2001, light trap 1(2), leg. L. Kühne § J. Holstein. [red oblong printed label]' (ZMHB). **Paratypes:** 16 spec: same data as in holotype. (ZMHB, LHPC). 15 spec. KENYA – Western, Kakamega Forest N.R., env. Udo's Campsite, 0.21N/34.51E, 1600m, 27.–29.ix. 2001, light trap, leg. L. Kühne. [all specimens with a red oblong printed label] (ZMHB, LHPC).

TYPE LOCALITY. Kenya – Western, Kakamega Forest N. R. prim. forest 1600 m.

DESCRIPTION. Body length: 8.5 : 8.9 mm, length of fore body (to end of elytra) 4.8 : 5.0 mm. Head, scutellum and abdomen black, pronotum black-brown, elytra red-brown with reddish suture, slightly dark blue iridescent, maxillary and labial palpi black brown, apex of palpomere 3 slightly paler, mandibles black-brown, antennae black, base of antennomere 2 yellow-brown, legs black.

Head transverse, slightly narrows behind eyes, wider than long (ratio 27.5:22), eyes slightly convex, longer than temples (ratio 11:7.5), between eyes 6 coarse equidistant punctures, posterior margin of eyes with two coarse punctures, temporal area with several variable but large punctures, surface with transverse patches of fine microsculpture.

Antennae long, exceeding posterior margin of pronotum by the length of antennomere 10, all antennomeres longer than wide. Length of antennomeres: 1 = 9; 2 = 5; 3 = 6; 4 = 4.5; 5–7 = 4.5; 8–10 = 4; 11 = 6.

Pronotum slightly narrows anteriorly, wider than long (ratio 36:34), each dorsal row with 6 coarse equidistant punctures, each sublateral row with 2 punctures, puncture 1 situated behind level of puncture 3 in dorsal row, microsculpture similar to that on head.

Scutellum finely and relatively densely punctured, diameter of punctures slightly smaller than eye facets.

Elytra wider than long (ratio 46.5:43), at base as wide as pronotum, very coarsely and uniformly punctured, diameter of punctures slightly greater than eye facets, separated by about one transversely measured puncture diameter, surface between punctures without microsculpture; setation brown-yellow.

Abdomen parallel-sided, first three visible tergites with two basal lines, elevated area between lines impunctate, anterior half of tergites very finely punctate, diameter of punctures smaller than that of eye facets, posterior half of tergites only with very fine scattered punctures, surface without microsculpture, shiny; setation grey.

Legs. Metatarsus shorter than metatibia (ratio 25:25), length of metatarsomeres: 1 = 7.5; 2 = 4; 3 = 3.5; 4 = 0.12; 5 = 7.5.

Male. Protarsomeres 1–3 very strongly dilated, sub-bilobed, each densely covered with modified pale setae ventrally, protarsomere 4 very small, sternite VIII (Fig. 65), aedeagus (Figs. 62–64).

Female. Protarsomeres 1–3 similar to those of male, but less dilated, protarsomere 4 narrower than preceding ones.

DIFFERENTIAL DIAGNOSIS. *Philonthus diceros* sp. nov. may be distinguished from the similar *P. mocquersyi* by its darker elytra, abdomen and legs and the different shape of its aedeagus.

DISTRIBUTION. Kenya.

ETYMOLOGY. The name of this species, a noun in apposition, is the Latin generic name of the African Black Rhinoceros *Diceros bicornis* (Linnaeus, 1758).

### ***Philonthus ignipennis* Tottenham, 1962**

(Figs. 46–48, Fig. 78)

*Philonthus ignipennis* Tottenham, 1962:162

TYPE MATERIAL. **Holotype**: ♂, 'Gabon, Luango, R.I.Sc.N.B. 17.479, coll. et det. A. Fauvel, *P. ignipennis* Fauv // *Philonthus ignipennis* Tottenham, TYPE [ochre oblong label, handwritten]' (IRSB), **Paratype**: 1 spec., m\*: same label data as holotype (IRSB).

TYPE LOCALITY. Gabon, Luango.

REDESCRIPTION. Body length 13.2–14.9 mm, length of fore body (to end of elytra) 6.5–7.1 mm. Body black, elytra metallic bronze with a fiery violet-green reflection in parts, maxillary and labial palpi brown, terminal palpomere of both palps slightly paler, mandibles black-brown, antennae black, base of antennomere 2 yellow-brown, legs black-brown.

Head transverse, wider than long (ratio 45–60:40–52), parallel-sided, posterior angles obtusely rounded, each bearing 1 long black and several shorter bristles. Eyes slightly convex, hardly shorter than temples (ratio 17:18). Between root of antennae 2 coarse punctures, between eyes 4 punctures, distance between medial interocular punctures five times that between medial and lateral punctures. Posterior margin of eyes with 2 coarse punctures, temporal area with several varying large punctures. Surface without microsculpture.

Antennae slender and long, reaching posterior fifth of pronotum when reclined. Relative length of antennomeres: 1 = 18; 2–3 = 10; 4–7 = 5; 8–10 = 4.4; 11 = 7.

Pronotum very convex, wider than long (ratio 49–58:42–47), distinctly narrower posteriorly, anterior angles conspicuously deflexed, slightly obtusely rounded, posterior angles markedly rounded. Lateral margin, with 2 long black bristles on anterior third. Left dorsal row with 3 coarse punctures, right row with 4 coarse punctures, distance between punctures 2–4 equidistant. Distance between punctures 1–2 slightly greater than distance between previous punctures. Each sublateral row with 1 puncture, situated behind level of puncture 2 in dorsal rows. Surface without microsculpture.

Scutellum densely and coarsely punctate on the middle, punctures larger than eye-facets, separated by one transversely measured diameter of a puncture. All sides of scutellum wide impunctate.

Elytra wider than long (ratio 65–73:58–62), distinctly wider posteriorly, relatively deep cut on posterior margin. Punctuation coarse and sparse. Punctures coarser and larger than on scutellum. Separated by one and half or two puncture diameters. Surface between punctures without microsculpture; setation longer, especially on sides.

Legs. Metatibia hardly longer than metatarsus (47 : 45), relative length of metatarsomeres: 1 = 16; 2 = 7; 3 = 6; 4 = 5; 5 = 8.

Abdomen wide, from visible tergite III slightly narrows anteriorly and posteriorly. Punctuation between two basal lines on first three visible tergites impunctate. Punctuation of all tergites much denser and finer than on elytra, punctures mostly drop-shaped. Surface between punctures without microsculpture.

Male: Protarsomeres 1–3 strongly dilated and sub-bilobed, each covered with modified pale setae ventrally. Protarsomere 4 distinctly narrower than preceding ones, heart-shaped. Aedeagus (Figs. 46–48).

Female. Unknown.

DIFFERENTIAL DIAGNOSIS. *P. ignipennis* is similar to *P. centropyge* sp. nov. but differs in having a smaller number of punctures between its eyes and darker elytra, from *P. actophilornis* sp. nov. in having a greater number of punctures between its eyes and longer eyes. This species differs from both the latter species in the shape of its aedeagus.

DISTRIBUTION. Gabon (Herman).

### ***Philonthus mocquerysi* Fauvel, 1903**

(Figs. 74–76, Fig. 78)

*Philonthus mocquerysi* Fauvel, 1903: 241.

TYPE MATERIAL. **Holotype**: ♂, '*Philonthus mocquerysi* Fauvel, Gabon [ochre oblong label handwritten]' (IRSB).

TYPE LOCALITY. Gabon.

REDESCRIPTION. Body length 10.0 mm, length of fore body (to end of elytra) 4.8 mm. Head black, pronotum and scutellum black-brown, elytra red-orange, abdomen with visible tergites 1–5 and anterior half of tergite 6 brown, posterior half of tergite 6 and whole of tergite 7 yellow. Maxillary and labial palpi brown-yellow, mandibles brown, antennomere 11 brown-yellow, remaining antennomeres brown-black. Legs yellow.

Head wider than long (ratio 34:26), distinctly narrower posteriorly, posterior angles obtusely rounded, with one small tooth (as in *P. morio* Boheman, 1848), bearing one long black bristle. Between eyes 6 coarse punctures, punctures 2 and 5 shifted anteriorly. Posterior half of inner

margin of eyes with 4 coarse punctures. Temporal area with several small punctures. Surface with very fine and irregular microsculpture.

Antennae short and stout, reaching posterior fourth of pronotum when reclined. Relative length of antennomeres: 1 = 9; 2 = 5; 3 = 6; 4–10 = 4; 11 = 6.

Pronotum very convex, as long as wide, parallel-sided, Anterior angles almost rectangular, slightly obtusely rounded, bearing several long black bristles, posterior angles markedly rounded. Each dorsal row with 6 equidistant punctures, each sublateral row with 2 punctures, puncture two slightly shifted laterally. Surface with microsculpture similar to that on head.

Scutellum finely and sparsely punctate, diameter of punctures almost as great as that of the eye-facets, separated by one or one and half puncture diameters.

Elytra wider than long (ratio 50:46), slightly wider posteriorly. Punctuation fine and sparse, punctures slightly larger than those on scutellum, separated by one or one and half puncture diameters. Surface without microsculpture; setation ginger-coloured.

Legs. Metatibia longer than metatarsus (ratio 25:22), relative length of metatarsomeres: 1 = 9; 2 = 4; 3 = 3; 4 : 3; 5 = 7.

Male. Protarsomeres 1–3 markedly dilated and sub-bilobed, each covered with modified pale setae ventrally, protarsomere 4 narrower than preceding ones. Aedeagus (Figs. 74–76).

Female. Unknown.

DIFFERENTIAL DIAGNOSIS. *P. mocquersyi* may be distinguished from the similar *P. pervagus* by its shorter antennae, wider head, paler and longer elytra, different colouring of its abdomen, from *P. diceros* sp. nov. by its paler elytra, abdomen and legs and from both the latter by the shape of its aedeagus.

DISTRIBUTION. Gabon.

### ***Philonthus ochripennis* Cameron, 1929**

(Figs. 49–54, Fig. 78)

*Philonthus ochripennis* Cameron, 1929: 63.

TYPE MATERIAL. **Holotype**: ♀, 'Haut-Uele: Motto, Democratic Republic of the Congo, ['Belgisch Kongo'] x.–xi.1923, L. Burgeon, Myrmécophile: de Dorylus, M. Cameron, Bequest, B.M. 1955-147. // TYPE *Philonthus ochripennis* Cameron [white oblong label handwritten]' (BMNH).

ADDITIONAL MATERIAL EXAMINED. Democratic Republic of the Congo: 1 spec., m\*, Bondia, l.xi.1927, 1 spec., Dollary, Déblais d'un nid de Dorylines, M. Cameron, Bequest, B.M. 1955-147. (LHPC).

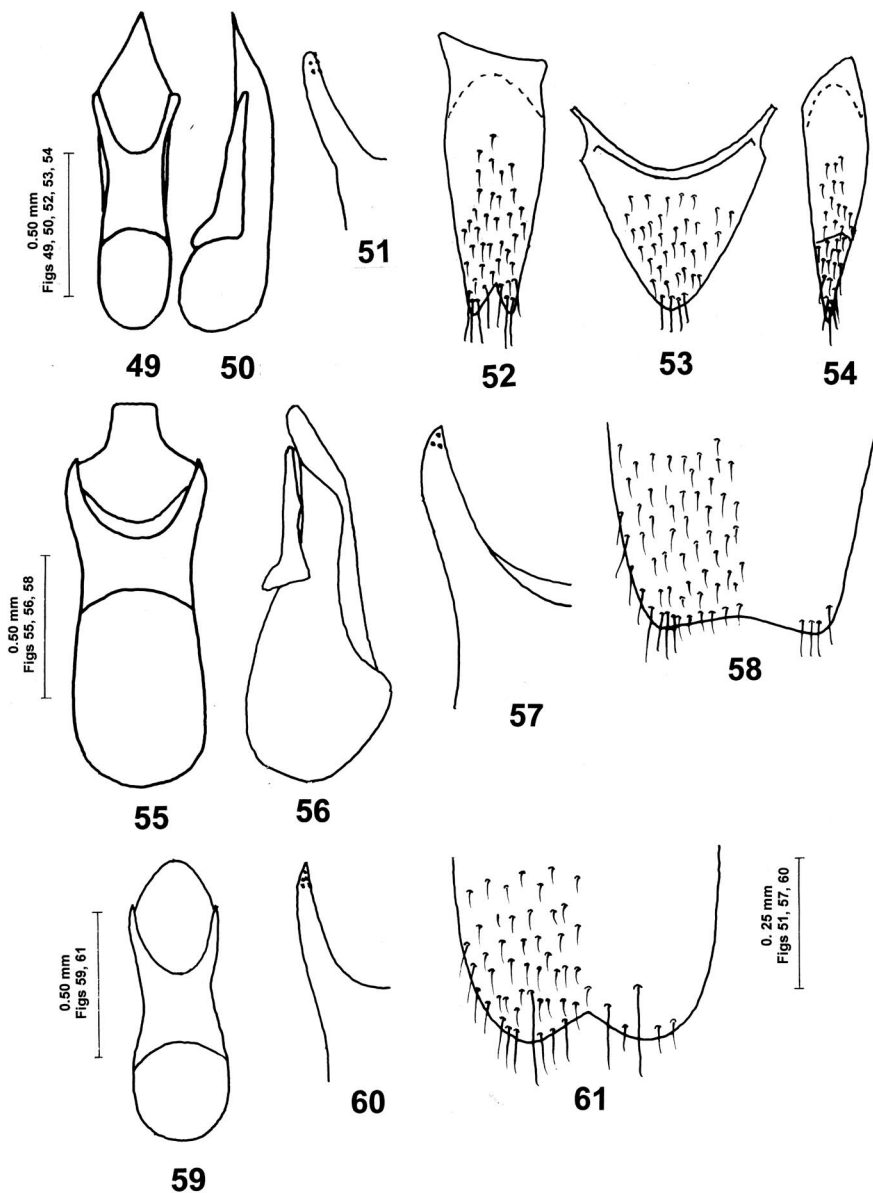
TYPE LOCALITY. Haut-Uele: Moto ['Belgisch Kongo'].

REDESCRIPTION. Body length 9.2 mm, length of fore body (to end of elytra) 4.4 mm. Head and pronotum black, scutellum black, with posterior half red-brown, elytra red-yellow, abdomen black-brown, posterior margin of all tergites slightly brown-red. Maxillary and labial palpi dark brown, palpomere 3 of both palps slightly paler distally. Antennae black, base of antennomere 2 yellow-brown, femora yellow-brown, tibiae dark brown, tarsi black, tarsomeres 4–5 slightly paler.

Head wider than long (ratio 28:24), parallel-sided. Eyes longer than temples (14:5). Four coarse punctures between eyes, distance between medial interocular punctures five times greater than distance between medial and lateral punctures. Posterior margin of eyes with 3 coarse punctures, temporal area with several coarse punctures. Surface with very fine irregular microsculpture.

Antennae slender and long, reaching posterior fifth of pronotum when reclined. Relative length of antennomeres: 1 = 9; 2 = 5.5; 3 = 5; 4–7 = 3; 8–10 = 2.5; 11 = 7.

Pronotum wider than long (ratio 34:32), slightly narrower anteriorly. Anterior angles bearing several relatively short black bristles. Each dorsal row with 5 coarse punctures, each sublateral row with 2 punctures. Surface with microsculpture similar to that on head.



Figs. 49–61. Species of the genus *Philonthus* Stephens, 1829. 49–54 – *Philonthus ochripennis* Cameron, 1929. 49 – aedeagus, ventral view, 50 – aedeagus, lateral view, 51 – left branch of paramere with sensory peg setae, dorsal view. 52 – male sternite IX, ventral view, 53 – female tergite X, ventral view, 54 – gonocoxite of female genital segment, ventral view. 55–58 – *Philonthus overlaetianus* Bernhauer, 1936. 55 – aedeagus, ventral view, 56 – aedeagus, lateral view, 57 – left branch of paramere with sensory peg setae, dorsal view, 58 – male sternite VIII, ventral view. 59–61 – *Philonthus pervagus* Cameron, 1932. 59 – aedeagus, ventral view, 60 – left branch of paramere with sensory peg setae, dorsal view, 61 – apical portion of male sternite VIII, ventral view.

Scutellum very densely and finely punctate, surface with very fine microsculpture; setation dense.

Elytra wider than long (ratio 24:15), slightly wider posteriorly. Very finely and densely punctate, diameter of punctures as large as eye-facets, separated by one transversely measured puncture diameter. Surface without microsculpture; setation long and yellow.

Legs. Metatibia longer than metatarsus (ratio 26:23), relative length of metatarsomeres: 1 = 7; 2 = 3.5; 3 = 3; 4 = 2.5; 5 = 5.

Abdomen parallel-sided, first three visible tergites with two basal lines, elevated area between lines impunctate. Punctuation on all visible tergites fine and dense, diameter of punctures smaller than eye-facets. Separated by one or one and half puncture diameters. Surface without microsculpture; setation long and yellowish.

Male. Protarsomeres 1–3 dilated and sub-bilobed, each covered with modified pale setae ventrally, protarsomere 4 narrower than preceding ones. Sternite IX (Fig. 52), aedeagus (Figs. 49–51).

Female. Protarsomeres 1–3 moderately dilated, each densely covered with modified pale setae ventrally, protarsomere 4 scarcely dilated, narrower than preceding ones. Tergite X (Fig. 53), gonocoxite of female genital segment (Fig. 54).

DIFFERENTIAL DIAGNOSIS. *P. ochripennis* is very close to *P. aquita* sp. nov. It may be distinguished from the latter by its paler elytra and legs, different colour of antennomere 1 and narrower head, from *P. congoensis* by its paler elytra, longer eyes, from *P. overlaeti* by its narrower head, paler femora, different colouring of abdomen and differs from all the other species in this group in the shape of its aedeagus.

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

### *Philonthus overlaeti* Bernhauer, 1935 (Figs. 66–69, Fig. 78)

*Philonthus overlaeti* Bernhauer, 1935: 103.

TYPE MATERIAL... **Holotype:** ♂, 'Democratic Republic of the Congo, Lulua: Lunene: Kasai, 6.ii.1932, F. Overlaet // *Overlaeti* Bernhauer, TYPUS [ochre oblong label handwritten] Musée du Congo, Chicago NHMus M. Bernhauer Collection' (FMNH).

TYPE LOCALITY. Lulua: Lunene: Kasai.

REDESCRIPTION. Body length 10.4 mm, length of fore body (to end of elytra) 5.1 mm. Head, pronotum, scutellum and abdomen black, elytra red, blackish translucent in parts, maxillary, labial palpi, antennae and legs dark brown.

Head transverse, distinctly wider than long (ratio 42:32), parallel-sided, posterior angles bluntly rounded, bearing one long black bristle. Eyes slightly convex, shorter than temples (ratio 11 : 15). Between eyes 4 fine punctures, distance between medial punctures, three times greater than distance between medial and lateral punctures. Temporal area with several punctures. Surface microsculpture consisting of transverse and oblique patches.

Antennae stout and short, reaching first third of pronotum when reclined. Antennomeres 1–3 and 11 longer than wide, antennomeres 4–5 as long as wide, antennomeres 6–10 wider than long. Relative length of antennomeres: 1 = 10; 2–3 = 6; 4–5 = 4; 6–10 = 3.5.

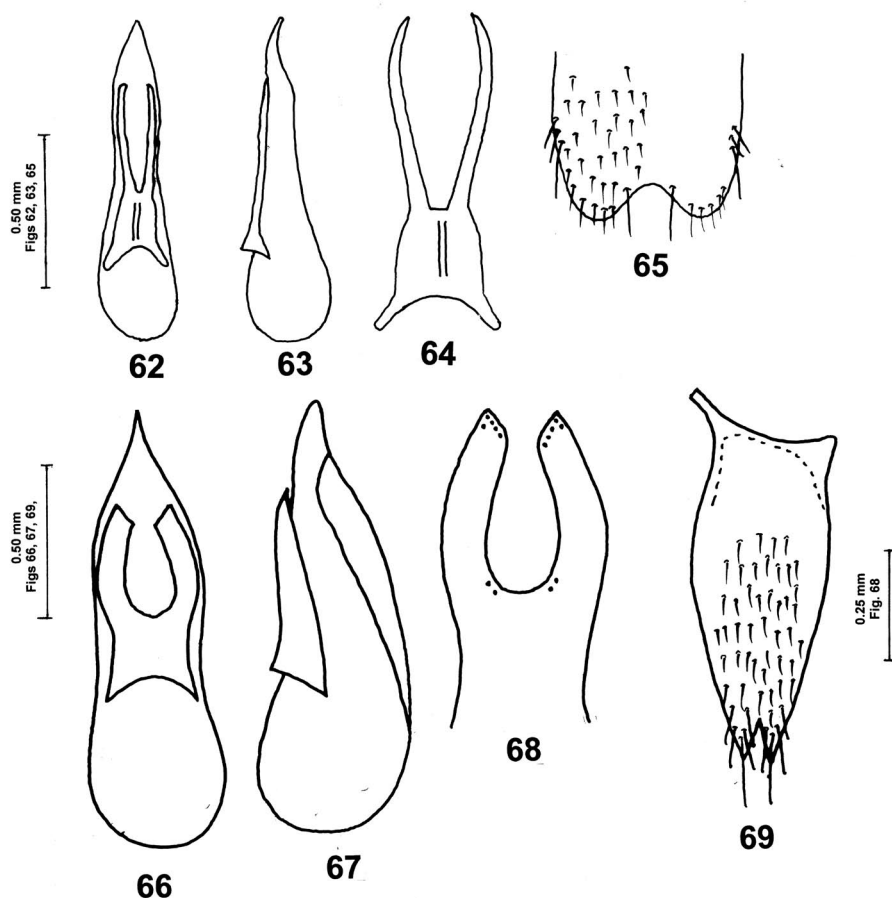
Pronotum very convex, parallel-sided, as long as wide, anterior angles almost rectangular, slightly rounded, bearing several short bristles, posterior angles markedly rounded. Sides with one long black bristle on anterior third. Each dorsal row with 5 equidistant punctures. Distance between posterior margin of pronotum and puncture 5 equal to the length of antennomeres 1 and 2 combined. Each sublateral row with 2 punctures, puncture 1 situated behind level of puncture

3 in dorsal row, puncture 2 distinctly shifted to the lateral margin. Microsculpture similar to that on head.

Scutellum finely and sparsely punctate, punctures smaller than eye facets, separated by one and half puncture dimeters. Middle of anterior half impunctate. Setation long and dark.

Elytra wider than long (ratio 52:48) slightly wider posteriorly. Punctuation fine and dense, punctures as large as eye facets, separated by one and half transversely measured diameters of punctures. Surface between punctures without microsculpture. Setation greyish.

Legs. Metatarsus as long as metatibia, on external side of tibiae several long black bristles. Metatarsomere 1 somewhat shorter than metatarsomere 5. Relative length of metatarsomeres: 1 = 8; 2 = 5; 3–4 = 4; 5 = 9.



Figs. 62–69. Species of the genus *Philonthus* Stephens, 1829. 62–65 – *Philonthus diceros* sp. nov. 62 – aedeagus, ventral view, 63 – aedeagus, lateral view, 64 – paramere with sensory peg setae, ventral view, 65 – apical portion of male sternite VIII, ventral view. 66–69 – *Philonthus overlaeti* Bernhauer, 1935. 66 – aedeagus, ventral view, 67 – aedeagus – lateral view, 68 – apex of paramere with sensory peg setae, ventral view, 69 – male sternite IX, ventral view.

Abdomen wide, narrows from visible tergite III towards base and apex. Elevated area between two basal lines on first three visible tergites finely punctate. Punctuation on all tergites finer and denser than on elytra. Surface without microsculpture. Setation similar to that on elytra.

Male. Protarsomeres 1–3 strongly dilated, sub-bilobed, each densely covered with modified pale setae ventrally, protarsomere 4 distinctly narrower than preceding ones, heart-shaped. Sternite IX (Fig. 69), aedeagus (Figs. 66–68).

Female. Unknown.

DIFFERENTIAL DIAGNOSIS. *P. overlaeti* may be distinguished from the similar *P. ochripennis* by its wider head, darker femora, different colouring of abdomen and the shape of its aedeagus.

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

### ***Philonthus overlaetianus* Bernhauer, 1936**

(Figs. 55–58, Fig. 78)

*Philonthus overlaetianus* Bernhauer, 1936: 22.

TYPE MATERIAL. **Holotype:** ♂, 'Democratic Republic of the Congo, Lulua: Kapanga, ii.1933, G. Overlaet, Musée du Congo // *Philonthus overlaetianus* Bernhauer TYPE [ochre oblong label handwritten], Chicago NHMus M. Bernhauer collection.' (FMNH).

TYPE LOCALITY. Lulua: Kapanga.

REDESCRIPTION. Body length 8.5 mm, length of fore body (to end of elytra) 4.4 mm. Clypeus black along anterior margin, antennal sockets narrowly brown-yellow, maxillary and labial palpi brown-yellow, mandibles black-brown, antennae black, legs brown, tibiae slightly darker.

Head transverse, distinctly wider than long (ratio 44:28), parallel-sided, posterior angles obtusely rounded. Eyes slightly convex, longer than temples (ratio 13.5:10), between eyes 4 coarse punctures, distance between medial interocular punctures three times greater than distance between medial and lateral punctures. Posterior margin of eyes with one coarse setiferous puncture, temporal area with several variably large punctures.

Antennae long, reaching posterior sixth of pronotum when reclined. Relative length of antennomeres: 1 = 10.5; 2 = 7; 3 = 8; 4 = 5; 5 = 4; 6–10 = 3; 11 = 6.

Pronotum very convex, wider than long (ratio 39 : 35), widest in the middle, slightly narrower from visible tergite III anteriorly and posteriorly. Anterior angles almost rectangular bearing several bristles. Each dorsal row with 5 punctures, punctures 2–4 equidistant, distance between punctures 1 and 2 and between 4 and 5 larger than distance between previous punctures. Each sublateral row with 2 punctures. Sides with several variably long bristles. Surface with special microsculpture, composed of short pale horizontal macrons.

Scutellum very densely and coarsely punctate, punctures somewhat larger than eye-facets, separation between punctures smaller than one puncture diameter.

Elytra wider than long (ratio 48:44), parallel-sided. Punctuation very fine and dense, diameter of punctures as large as eye-facets, separated by one or one and half transversely measured diameters of punctures. Surface without microsculpture; setation dark.

Legs. Metatarsus slightly longer than metatibia (ratio 26:24). Tibiae with many bristles. Relative length of metatarsomeres: 1 = 8.5; 2 = 4; 3 = 3; 4 = 2.5; 5 = 7.

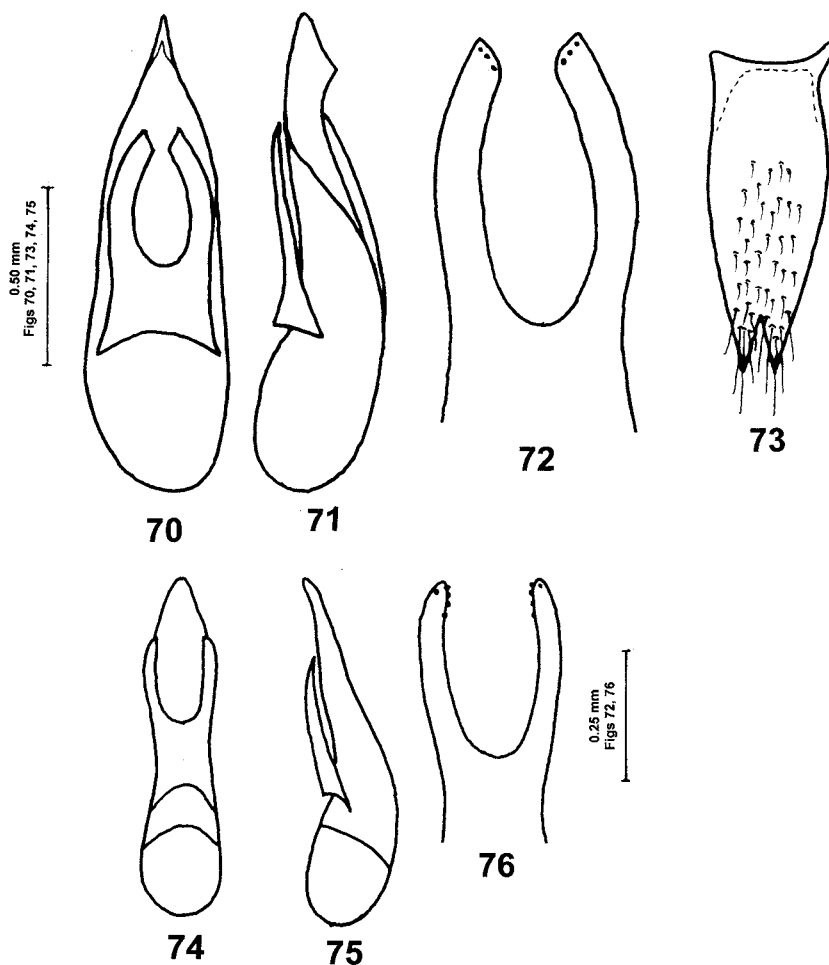
Abdomen narrows slightly from visible tergite III anteriorly and posteriorly. First three visible tergites with two basal lines, elevated area between lines very densely punctate. Punctuation on base of all tergites similar to that on elytra, gradually becoming finer and sparser towards posterior margin of each tergite. Surface between punctures without microsculpture; setation similar to that on elytra.

Male. Protarsomeres 1–3 relatively slightly dilated and sub-bilobed, each covered with modified pale setae ventrally. Protarsomere 4 narrower than preceding ones. Sternite VIII (Fig. 58), aedeagus (Figs. 55–57).

Female. Unknown.

DIFFERENTIAL DIAGNOSIS. *P. overlaetianus* is similar to *P. cephalopholis* sp. nov., from which it may be distinguished by its wider head, slightly shorter antennae and the shape of its aedeagus.

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



Figs. 70–76. Species of the genus *Philonthus* Stephens, 1829. 70–73 – *Philonthus rhodesiae* Tottenham, 1949. 70 – aedeagus, ventral view, 71 – aedeagus, lateral view, 72 – apex of paramere with sensory peg setae, ventral view, 73 – male sternite IX, ventral view. 74–76 – *Philonthus mocquerysi* Fauvel, 1903. 74 – aedeagus, ventral view, 75 – aedeagus, lateral view, 76 – apex of paramere with sensory peg setae, ventral view.

***Philonthus pervagus* Cameron, 1932**

(Figs. 59–61, Fig. 78)

*Philonthus pervagus* Cameron, 1932: 134.

TYPE MATERIAL. **Paratype:** ♂, 'Democratic Republic of the Congo, Toshibo N'Goy, 9.vii.1926, A. Dollary, M. Cameron, Bequest, B.M.1955-147. // *Philonthus pervagus* Cameron TYPE [white oblong label handwritten]' (BMNH).

TYPE LOCALITY. Toshibo N'Goy.

REDESCRIPTION. Body length 10.2 mm, length of fore body (to end of elytra) 5.1 mm. Head, pronotum, scutellum and elytra black, abdomen brown-black, clypeus along anterior margin and antennal sockets very slightly yellow-brown, maxillary, labial palpi and mandibles dark brown-red, antennomeres 1–2 brown-black, remaining antennomeres black. Femora brown-yellow, inner side of tibiae darker, tarsomere 1 of all tarsi dark brown, remaining tarsomeres brown-yellow.

Head rounded, slightly wider than long (ratio 25:21), posterior angles bearing two long and several short bristles. Eyes flat, longer than temples (ratio 10.5:7). Between eyes 6 coarse punctures, from punctures 1 and 6 towards middle of the neck, oblique rows consisting of 5 punctures. 5 punctures around inner side of eyes. Surface with very fine irregular microsculpture.

Antennae long, reaching posterior margin of pronotum when reclined. Relative length of antennomeres: 1 = 7; 2 = 5; 3 = 4.5; 4 = 3; 5–10 = 2.5; 11 = 5.

Pronotum as long as wide, parallel-sided, anterior angles rectangular bearing several variably long bristles. Each dorsal row with 6 coarse equidistant punctures, each sublateral row with 3 punctures. Surface with microsculpture similar to that on head.

Scutellum sparsely and finely punctured. Diameter of punctures slightly smaller than eye-facets, separated by one and half transversely measured diameters of punctures. Setation long and dark.

Elytra as long as wide, slightly wider posteriorly. Punctuation fine and sparse, as large as eye-facets, separated by two puncture diameters. Surface without microsculpture; setation long and yellow-brown.

Legs. Metatibia longer than metatarsus (ratio 19:15). Relative length of metatarsomeres: 1 = 4.5; 2 = 3; 3–4 = 2; 5 = 4.

Abdomen very gradually narrows posteriorly. First three visible tergites with two basal lines, elevated area between lines impunctate. Punctuation on visible tergites very fine and dense, diameter of punctures smaller than eye-facets, separated by one or one and half puncture diameters. Surface without microsculpture; setation similar to 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 VIII (Fig. 61), aedeagus (Fig. 59–60).

Female. Unknown.

DIFFERENTIAL DIAGNOSIS. *P. pervagus* may be distinguished from *P. recticollis* by its narrower pronotum and elytra, shorter branches of paramere, from *P. arvicanthis* sp. nov. by its darker pronotum and narrower elytra, from *P. mocquerysi* by its longer antennae, narrower head, darker and shorter elytra and the different colouring of its abdomen. This species differs from all the other species in this group in the shape of its aedeagus.

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

***Philonthus rhodesiae* Tottenham, 1949**

(Figs. 70–73, Fig. 78)

*Philonthus rhodesiae* Tottenham, 1949:319.

TYPE MATERIAL. **Holotype**: ♂, 'Zambia [N. W. Rhodesia]', Kashitu, February 1915, H. C. Dollman, H. C. Dollman collection 1919-79 // *Philonthus rhodesiae*, Tottenham, TYPE/ [white oblong label, handwritten]' (BMNH).

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

REDESCRIPTION. Body length 10.8 mm, length of fore body (to end of elytra) 5.5 mm.

Head, pronotum and scutellum black, elytra red, abdomen black-brown, posterior margin of all tergites slightly light-red. Maxillary, labial palpi, mandibles, antennae and legs brown.

Head transverse, wider than long (ratio 45:35), slightly narrower posteriorly, posterior angles of head capsule slightly rounded. Eyes shorter than temples (ratio 13:16). Four fine punctures between eyes arranged in a straight line, distance between medial interocular punctures about two and half times greater than the distance between medial and lateral punctures. Temporal area with scattered variably large punctures. Surface with very fine microsculpture consisting of transverse patches.

Antennae short and stout, reaching half length of pronotum when reclined. Antennomeres 1–4 and 1 longer than wide, antennomeres 5–6 as long as wide, antennomeres 7–10 wider than long. Antennomere 1 twice as long as antennomere 11, antennomere 2 longer than antennomere 3.



Fig. 77. Occurrence of the species of the *Philonthus cupreonitens* group in the Afrotropical Region. Symbols used for the species: ● *P. actophilornis* sp. nov., ◊ *P. centropyge* sp. nov., ○ *P. aquila* sp. nov., ◻ *P. cephalopholis* sp. nov., ♥ *P. arvicanthus* sp. nov., Δ *P. civettictis* sp. nov., ▲ *P. recticollis* Cameron, 1947, \* *P. congoensis* Bernhauer, 1928, ♣ *P. caedator* Tottenham, 1949, + *P. coris* sp. nov.



Fig. 78. Occurrence of the species of the *Philonthus cupreonitens* group in the Afrotropical Region. Symbols used for the species: ● *P. cupreonitens* Eppelsheim, 1895, ◇ *P. overlaeti* Bernhauer, 1935, ○ *P. dicerus* sp. nov., □ *P. overlaetianus* Bernhauer, 1936, \* *P. ignipennis* Tottenham, 1962, Δ *P. pervagus* Cameron, 1932, ♥ *P. mocquerysi* Fauvel, 1903, ♣ *P. ochripennis* Cameron, 1929, + *P. rhodesiae* Tottenham, 1949.

Pronotum very convex, wider than long (ratio 47:42), slightly narrower anteriorly, anterior angles almost rectangular, with several variably large punctures, posterior angles conspicuously rounded. 1 long black bristle on anterior third of sides. Each dorsal row with 4 punctures, punctures 1–3 equidistant, distance between punctures 3–4 slightly less than that between previous punctures. Each sublateral row with 2 fine punctures, puncture 2 slightly shifted to the lateral margin. Microsculpture similar to that on head.

Scutellum very densely and coarsely punctate, punctures slightly larger than eye-facets, distance between punctures equal in size to punctures, surface with very fine microsculpture; ginger coloured setation.

Elytra wider than long (ratio 47:42), slightly wider posteriorly. Punctuation fine and dense, punctures slightly larger than on scutellum, separated by one or one and half puncture diameters. Surface without microsculpture; setation similar to that on scutellum.

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

Abdomen from visible tergite III slightly narrow anteriorly and posteriorly. Elevated area between two basal lines on first three visible tergites finely and densely punctate. Punctuation on

all tergites much finer and denser than on elytra, punctures coalesce in places, mostly drop-shaped. Setation similar to that on elytra.

Male. Protarsomeres 1–3 markedly dilated and sub-bilobed, each covered with modified pale setae ventrally, protarsomere 4 distinctly narrower than preceding ones. Sternite IX (Fig. 73), aedeagus (paramere of holotype torn-off) (Figs. 70–72).

Female. Unknown.

DIFFERENTIAL DIAGNOSIS. *Philonthus rhodesiae* may be distinguished from all other species in this group by the presence of four punctures in both of the dorsal rows on pronotum.

DISTRIBUTION. Zambia (Herman 2001).

### Key to the species of the *Philonthus cupreonitens* species group

- 1 Species with irregular numbers of punctures in dorsal rows. .... 2
- Species with regular numbers of punctures in dorsal rows. .... 3
- 2 Left dorsal row with 3 punctures, right dorsal row with 4 punctures. Between eyes 4 coarse punctures, elytra black. .... ☐ *P. ignipennis* Tottenham, 1962
- Left dorsal row with 4 punctures, right dorsal row with 5 punctures. Between eyes 6 coarse punctures, elytra red-brown. .... ☐ *P. centropyge* sp. nov.
- 3 Each dorsal row with 4 punctures, elytra red. .... *P. rhodesiae* Tottenham, 1949
- Each dorsal row with 5 punctures. .... 4
- Each dorsal row with 6 punctures. .... 13
- 4 Between eyes 4 coarse punctures. .... 5
- Between eyes 6 coarse punctures, temples distinctly longer than eyes (ratio 12 : 5). .... *P. actophilornis* sp. nov.
- 5 Elytra red-yellow. .... ☐ 6
- Elytra brown-black to black. .... ☐ 7
- 6 Eyes distinctly longer than temples (ratio 14 : 5). .... *P. ochripennis* Cameron, 1929
- Eyes distinctly shorter than temples (ratio 11 : 15). .... *P. overlaeti* Bernhauer, 1935
- 7 Antennae black, ventral side of antennomere 1 yellow-brown, remaining antennomeres black. .... *P. aquita* sp. nov.
- Antennae entirely black. .... ☐ 8
- 8 Eyes shorter than temples (ratio 10 : 12), antennomeres 1,2 and 11 brown-yellow. .... *P. congoensis* Bernhauer, 1928
- Eyes longer than temples. .... ☐ 9
- 9 Small species, body length 8.1–8.5 mm. .... 10
- Large species, body length 9.2–10. .... 11
- 10 Aedeagus as in (Figs. 23 : 25), wide, short, median lobe wide, apical portion wider anteriorly with broadly rounded apex Fig. 23. .... *P. cephalopholis* sp. nov.
- Aedeagus as in (Figs. 55 : 57), median lobe with apical portion as in Fig. 55. .... *P. overlaetianus* Bernhauer, 1936
- 11 Head more transverse, slightly narrower posteriorly. .... 12
- Head less transverse, slightly narrower posteriorly. .... 13
- 12 Head hardly transverse (ratio 44 : 31), head and pronotum with dark metallic reflection, elytra with golden-green shine, antennae reaching posterior fourth of pronotum when reclined. .... *P. cupreonitens* Eppelsheim, 1895
- Head transverse (46 : 31), head and pronotum with brown-gold reflection, elytra with copper shine, antennae reaching posterior sixth of pronotum when reclined. .... *P. civettictis* sp. nov.
- 13 Head slightly transverse (35 : 29), head and pronotum purple-green iridescent, antennae long, reaching posterior fifth of pronotum when reclined. .... *P. caedator* Tottenham, 1949
- Head transverse (ratio 37 : 29), head black, pronotum black-brown, without coloured reflection, antennae slender and long, reaching posterior margin of pronotum when reclined. .... *P. coris* sp. nov.
- 14 Pronotum orange, antennomeres 1–2 yellow-brown, remaining antennomeres brown, eyes as long as temples. .... *P. arvicanthis* sp. nov.
- Pronotum black. .... ☐ 15
- 15 Small species, body length 7.5 : 8.9 mm. .... 16
- Large species, body length 10.0 mm. .... 19
- 16 Elytra red-orange or red-brown. .... ☐ 17
- Elytra black. .... ☐ 18
- 17 Head narrower (ratio 27.5 : 22), elytra red-brown, branches of paramere very long. .... *P. diceros* sp. nov.

- Head distinctly transverse (ratio 34 : 26), elytra red-orange, branches of paramere short. .... *P. mocquerysi* Fauvel, 1903
- 18 Head distinctly transverse (ratio 32.5 : 24), branches of paramere very long (Fig. 15). .... *P. atherurus* sp. nov.
- Elytra black, as long as wide, branches of paramere distinctly short (Fig 59). .... *P. pervagus* Cameron, 1932

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