

**Revision of Afrotropical species of the *Philonthus spinipes* species group
(Coleoptera: Staphylinidae: Staphylininae)**

Lubomír HROMÁDKA

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

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Abstract. The *Philonthus spinipes* species group of the genus *Philonthus* Stephens, 1829 is proposed to include ten species. Three new species are described as follows: *Philonthus dendropicos* sp. nov. (Zimbabwe), *Philonthus nectarinia* sp. nov. (Ethiopia, Zambia) and *Philonthus plotosus* sp. nov. (Tanzania); the following seven species are redescribed: *P. basicornis* Eppelsheim, 1895 (Ethiopia), *P. dimidiaticornis* Fauvel, 1905 (Nigeria), (*P. hirsutus* Tottenham, 1949 is not redescribed here, because I have not seen any species of the type series (Democratic Republic of the Congo)), *P. natalensis* Boheman, 1848 (South Africa, Ethiopia, Kenya, Tanzania), *P. natalensis ssp. vittatus* Roth, 1851 (Ethiopia), *P. pedarius* Cameron, 1950 (Rwanda), *P. ustus* Fauvel, 1907 (Democratic Republic of the Congo, Ethiopia, Kenya). All the species of the *P. spinipes* species group are keyed, and their aedeagi and relevant morphological characters are figured.

INTRODUCTION

In addition to the Afrotropical Region, the *Philonthus spinipes* species group is represented in the East Palaearctic and Oriental Regions. This species group was exhaustively characterized by Schillhammer (1999). Moderately large to large species 11-15 mm long; black to dark brown, elytra red, black with red spot or black with slight metallic greenish or brassy reflex; shape of head rectangular or slightly trapezoid, wider than long; tempora and infraorbital portion densely and coarsely punctate and setose, punctural grooves forming infraorbital carina and variably developed temporal carina close to posterior margin of head (the temporal carina is a consequence of the dense and large punctural grooves and is not always distinctly developed, whereas the infraorbital carina is bordering a furrow and is always distinctly developed; eyes markedly longer than tempora; mandibles stout and moderately long in small and medium-sized specimens, or long, slender and slightly angulate in large specimens; medial margins of mandibles with simple tooth; mouthparts simple; pronotum with sides subparallel or slightly rounded, usually with inconspicuous margination in front of base; margins with numerous dense and long setae, but sparing out middle of anterior and posterior margins; surface with distinct microsculpture of long-meshed, transverse waves; lateral and posterior margins of elytra also with more numerous long setae than usual in *Philonthus* (in *P. spinipes* only posterior margin); scutellum densely punctate; abdominal tergites moderately densely, almost uniformly punctate, iridescent; first three visible tergites with two basal lines, elevated area between basal lines impunctate, only on 3rd visible tergite occasionally with a sparse row of fine punctures close to posterior basal line, but sparing

out middle, exceptionally also with a very few scattered punctures on elevated area of 2nd visible tergite, posterior margin of tergite VIII subtruncate; first four segments of front tarsi moderately dilated in both sexes; somewhat wider in males, ventrally bearing modified setae; first three segments approximately of same size, segment four distinctly smaller; subbilobed or bilobed (*P. industanus*), slightly asymmetrical, more extended mediad than laterad; first segment of hind tarsi slightly longer than last segment, about as long as segments 2 - 4 combined.

Male sternite VIII with 3-4 large setae, posterior margin deeply emarginate, bearing inconspicuous semi-membranous extension, ground pubescence dense and long; male sternite IX with deeply emarginate apex, bearing two long preapical setae; second gonocoxite of female genital segment with long proximal seta and with minute stylus bearing two long setae. Aedeagus large (except *P. industanus*) and broad; median lobe with distinct gibbosity at apex of ventral face, in ventral view in shape of two apically fused carinae, in lateral view appearing as large, acute tooth; paramere long or moderately long, peg setae on underside forming two longitudinal rows or being more irregularly arranged (*P. spinipes*).

The following 9 Afrotropical species are included in the group:

<i>P. basicornis</i> Eppelsheim, 1895	Ethiopia, Burundi, Democratic Republic of the Congo, Gabon, Kenya, Rwanda, Sierra Leone, Tanzania, Togo
<i>P. dendropicos</i> sp. nov.	Zimbabwe
<i>P. dimidiaticornis</i> Fauvel, 1905	Nigeria, Rwanda, South Africa, Tanzania
<i>P. hirsutus</i> Tottenham, 1949	Republic of the Congo
<i>P. natalensis</i> Boheman, 1848	South Africa, Ethiopia, Kenya, Tanzania
<i>P. natalensis vittatus</i> Roth, 1851	Ethiopia
<i>P. nectarinia</i> sp. nov.	Ethiopia, Zambia
<i>P. pedarius</i> Cameron, 1950	Rwanda
<i>P. plotosus</i> sp. nov.	Tanzania
<i>P. ustus</i> Fauvel, 1907	Democratic Republic of the Congo, Ethiopia, Kenya, East Palaearctic and Oriental species
<i>P. dentiphallus</i> Schillhammer, 1999	China
<i>P. industanus</i> Fauvel, 1903	China, India, Indonesia, Malaysia, Nepal, Sri Lanka, Vietnam
<i>P. spinipes</i> Sharp, 1874	Europe, Armenia, Japan, Kazakhstan, China, Korea, Taiwan

MATERIAL AND METHODS

- The specimens studied are deposited in the following collections:
- BMNH The National History Museum, London, United Kingdom (Max Barcay, Roger Booth, Martin Brendell);
 - IRSB Institut royal des Science naturelles de Belgique, Bruxelles, Belgium (Yvonnick Gerard);
 - JJRC collection of Jiří Janák, Rtyň nad Bílinou, Czech Republic;
 - LHPC collection of Lubomír Hromádka, Praha, Czech Republic;
 - 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 labels of type specimens. All measurements were taken in beetles with stretched abdomen. All rations mentioned in the descriptions are dimensionless but can be converted to length in mm: 20 units = 1 mm.

RESULTS

Philonthus basicornis Eppelsheim, 1895 (Figs 1-4)

Philonthus basicornis Eppelsheim, 1895:????????????????????

Type locality. Togoland.

Type material. I have not studied the original material of *P. basicornis*.

Material examined. Burundi: Kaninya, vii.1940, H.J.Brédo, 1 spec., (LHPC), Ethiopia: Arsi, Assella, 7.xii.1988, 2400 m, cow dung, leg., S. Persson, 1 spec., (LHPC).

Redescription. Body length 11.5 mm, length of fore body (to end of elytra) 5.6 mm.

Colouration. Head and pronotum uniformly black, scutellum, elytra and abdomen black-brown, elytra black with bronze shine, abdomen rainbow coloured iridescent. Maxillary and labial palpi brown-yellow, antennomeres 1-3 yellow-brown, remaining antennomeres and legs black

Head wider than long (ratio 50 : 36), parallel-sided, posterior angles obtusely rounded, bearing several variably long black bristles. Between eyes with 4 coarse punctures, distance between medial punctures five times as large as distance between medial and lateral puncture. Medial punctures distinctly shifted to the front. Eyes flat, twice as long as temples (ratio 18 : 9). Posterior margin with three coarse setiferous punctures. Temporal area with several coarse punctures. Surface without microsculpture.

Antennae slender and long, reaching posterior fourth 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 shorter than antennomere 3.

Pronotum highly convex, wider than long (ratio 52 : 49) anterior angles rectangularly rounded, posterior angles markedly rounded. Each dorsal row with four coarse punctures, punctures 1-3 equidistant, distance between punctures 3-4 larger than distance between previous punctures. Each sublateral with two coarse punctures arranged in a row parallel to the dorsal row and way between it and side.

Scutellum very densely punctate, diameter of punctures larger than eye-facets, interstices much smaller than puncture diameter in transverse direction.

Elytra longer than wide (ratio 52 : 47), slightly widened posteriad. Punctuation fine and dense. Diameter of punctures as large as that on scutellum, interstices mostly as large as puncture diameter in transverse direction. Surface without microsculpture; setation dense and long, yellow-brown.

Legs. Metatibia as long as metatarsus, metatarsomere 1 longer than metatarsomere 5, as long as metatarsomeres 2-4 combined.

Abdomen wide, very gradually narrowed posteriad, first three visible tergites with two basal lines, elevated area between lines impunctate. Punctuation at base of all tergites finer and slightly sparser 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 distinctly dilated and sub-bilobed, each covered with modified pale setae ventrally, protarsomere 4 much narrower than preceding ones, heard-shape. Sternite IX (Fig. 4), aedeagus (Figs 1-3).

Female. Unknown to the author.

Differential diagnosis. *P. basicornis* is closely related to *P. natalensis*. It can be distinguished from the latter by different coloring of elytra, longer eyes, abdomen without violet- blue iridescence and different shape of the aedeagus.

Distribution. Ethiopia, Burundi, Democratic Republic of the Congo, Gabon, Kenya, Rwanda, Sierra Leone, Tanzania, Togo (Herman, 2001).

***Philonthus dendropicos* sp. nov.**

(Figs 32-35)

Type locality. Zimbabwe, Kutsaga near Harare airport.

Type material examined. Holotype (♂): "Zimbabwe near Harare airport, 18.vi.1997, W. Rossi leg., // Holotype, *Philonthus dendropicos* sp. nov. Hromádka det., [red oblong label printed]", (LHPC).

Description. Body length 10.8 mm, length of fore body (to end of elytra) 4.9 mm.

Colouration. Head, pronotum and scutellum black, elytra black, posterior angles narrowly and whole elytral epipleura dirty yellow, very slightly dark carmine translucent here and there, maxillary and labial palpomere 1 brown, remaining palpomeres and mandibles black, antennomeres 1-8 yellow, antennomeres 9-11 yellow-brown, femora and tarsi black, tibiae dirty yellow, darker distally.

Head transverse, wider than long (ratio 50 : 30), parallel-sided, posterior angles obtusely rounded, bearing several variably long bristles. Between eyes with four coarse punctures, distance between medial punctures five times larger than that between lateral and medial ones, medial punctures distinctly shifted to the front. Eyes longer than temples (ratio 16 : 12), temporal area with scattered punctures, from posterior margin of eyes, oblique towards the middle of posterior margin of head, with many setiferous, variably large punctures. Surface lacks microsculpture.

Antennae reaching posterior fourth of pronotum when reclined, antennomeres 1-3 and 11 distinctly longer than wide, antennomere 4 slightly longer than wide, antennomere 5 as long as wide, antennomeres 6-10 slightly wider than long.

Pronotum highly convex, wider than long (ratio 50 : 48), parallel-sided. Anterior angles conspicuously deflexed, vaguely obtusely rounded, bearing several variably long black bristles, posterior angles markedly rounded. Each dorsal row with four coarse equidistant punctures, distance between puncture four and posterior margin of pronotum as large as the length of antennomere one. Each sublateral row with two punctures, puncture one situated behind level of puncture two of dorsal row, puncture two distinctly shifted to the lateral margin. Surface lacks microsculpture.

Scutellum very densely and finely punctured. Diameter of punctures as large as eye-facets, separated as large as diameter of punctures, numerous of punctures bringing together.

Elytra wider than long (ratio 62 : 48), slightly widened posteriad. Punctuation fine and relatively dense. Diameter of punctures slightly larger than eye-facets, their separation by puncture diameter in transverse direction. Surface lacks microsculpture; setation brown-yellow.

Legs. Metatibia as long as metatarsus, metatarsomere 1 as long as metatarsomere 5, as long as metatarsomeres 2-3 combined.

Abdomen wide, from visible tergite three slightly narrowed anteriorly and posteriorly. First three visible tergites with two basal lines, elevated area between lines punctate. Punctuation at base of all tergites finer and denser than that on elytra, becoming 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, heart-shaped. Aedeagus (Figs 32-34), sternite IX (Fig. 35).

Female. Unknown to the author.

Differential diagnosis. *Philonthus dendropicus* sp. nov. may be distinguished from similar *P. dimidiaticornis* by its wider head, different colouring of antennae and elytra, sparser punctuation of elytra and different shape of the aedeagus.

Etymology. The name of this species, a noun in apposition, is the Latin generic name of the African Abyssinian woodpecker *Dendropicus fuscescens* (Vieillot, 1818).

Distribution. Zimbabwe.

Philonthus dimidiaticornis Fauvel, 1905

(Figs 5-7)

Philonthus dimidiaticornis Fauvel 1905: 197.

Type locality. Kioboscho, Kilimandjaro.

Type material. I have not studied the material of *P. dimidiaticornis*.

Material examined. Republic of South Africa: Northern Prov. Camp David, 5km S. Ofoofalco 475m, 17.-24.i.2002, leg. S. Murzin, 1 spec., (LHPC), Kruger NP: Skukuza, ex buffalo dung ex sample No. 13, leg. C. Paetel, 1 spec., (LHPC).

Redescription. Body length 11.3 mm, length of fore body (to end of elytra) 6.2 mm.

Colouration: Head, pronotum, scutellum and abdomen uniformly black, elytra brown-black, maxillary and labial palpi dark brown, antennomeres 1-5 yellow, remaining antennomeres dark brown, legs black.

Head transverse, wider than long (ratio 47 : 31), parallel-sided, posterior angles obtusely rounded, bearing one long black bristle. Between eyes with four coarse punctures, distance between medial punctures five times as large as that between medial and lateral ones, medial punctures distinctly shifted to the front. Eyes flat, much longer than temples (ratio 16 : 11), posterior margin with six coarse punctures, temporal area in posterior half with many coarse punctures, anterior half impunctate. Surface without microsculpture, with many microscopic dots.

Antennae stout, reaching posterior fourth 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. Antennomere 1 twice as long as antennomere 11, antennomere 2 shorter than antennomere 3.

Pronotum highly convex, as long as wide, anterior angles conspicuously deflexed, vaguely rectangularly rounded, posterior angles markedly rounded. Each dorsal row with four coarse, approximately equidistant punctures, each sublateral row with two punctures, puncture two slightly shifted to the lateral margin. Sides in anterior fourth bearing one long black bristle. Surface with very fine microsculpture consisting of transverse waves.

Scutellum very densely and finely punctate, diameter of punctures slightly larger than eye-facets, interstices as large as puncture diameter or slightly smaller. Setation relatively long and black.

Elytra wider than long (ratio 64 : 54), slightly widened posteriad. Punctuation slightly coarser than that on scutellum, separated approximately by puncture diameter in transverse direction. Surface without microsculpture; setation brown.

Legs. Metatibia as long as metatarsus, metatarsomere 1 slightly longer than metatarsomere 5 and shorter than metatarsomeres 2-4 combined.

Abdomen wide, from visible tergite III slightly narrowed anteriorly and posteriorly. First three visible tergites with two basal lines, elevated area between lines with scattered punctures. Punctuation at base of all tergites slightly finer and sparser than that on elytra, becoming sparser towards posterior margin of each tergite. Surface without microsculpture; setation of the same colouring as that on elytra.

Male. Protarsomeres 1-3 slightly dilated and sub-bilobed, each covered with modified pale setae ventrally, protarsomere 4 smaller than preceding ones. Aedeagus (Figs 5-7).

Female. Unknown to the author.

Differential diagnosis. *P. dimidiaticornis* may be distinguished from *P. plotosus* sp. nov. by its different coloring of antennae, narrower pronotum and by the different shape of the aedeagus.

Distribution. Tanzania, Nigeria, Rwanda, South Africa (Herman, 2001).

Philonthus hirsutus Tottenham, 1949

Philonthus hirsutus Tottenham, 1949: 312.

Type locality. Lulua: Kapanga.

Remarks. The species belongs to this group (Tottenham, 1949: 312), but unfortunately, I failed to find any piece of the type series, and thus, it is neither redescribed nor included into the key here.

Philonthus nairobiensis Cameron, 1950

(Figs 8-10)

Philonthus nairobiensis Cameron, 1950: 400.

Type locality. Keny Colony: Nairobi 5500 feet.

Type material. Holotype (♂): "Kenya, 1-39, Nairobi, 5500 feet, Pfs by Com. Ind. Ent.B.M. 1952-545. // *Philonthus nairobiensis* Cameron, det. TYPE. [white oblong label handwritten]", (BMNH).

Redescription. Body length 9.3, length of fore body (to end of elytra) 4.0.

Colouration. Head black, pronotum reddish-brown, lighter at anterior angles, scutellum dark brown, elytra yellow-brown, abdomen brown, strongly golden-violet-orange iridescent, maxillary, labial palpi and mandibles brown-yellow, antennomere 1 reddish-yellow, remaining antennomeres darker, femora reddish-yellow, tibiae and tarsi infusate.

Head rounded, wider than long (ratio 28 : 26), parallel-sided. Between eyes with four punctures, distance between medial punctures four times as large as that between medial and lateral ones. Eyes longer than temples (ratio 14 : 7), inner margin with one coarse puncture in posterior third, posterior margin with one coarse puncture. Temporal area with several small punctures. Surface consisting with very fine irregular microsculpture.

Antennae long, reaching posterior margin of pronotum when reclined. Right antenna only with antennomeres 1-2, by left antenna missing antennomeres 4-5, remaining antennomeres longer than wide. Antennomere 1 longer than antennomere 11, almost as long as antennomeres 2-3 combined, antennomere 2 shorter than antennomere 3.

Pronotum slightly convex, almost as long as wide, slightly narrowed anteriorly, posterior angles markedly rounded. Each dorsal row with four punctures, punctures 1-3 equidistant, distance between punctures 3-4 slightly larger than that between previous ones, each sublateral row with two fine punctures, puncture one situated almost behind level of puncture two in dorsal row, puncture two situated behind level of puncture three in dorsal row. Anterior angles bearing several variably long bristles, sides bearing one long black bristle in anterior third.

Scutellum in posterior half and sides coarsely and densely punctate, anterior half impunctate in the middle. Diameter of punctures vaguely larger than eye-facets, interstices between punctures by puncture diameter in transverse direction. Setation yellow-brown.

Elytra slightly longer than wide (45 : 43.5), parallel-sided. Punctuation coarse and dense, diameter of punctures larger than that on scutellum, separated by puncture diameter, or slightly larger. Many short and yellowish bristles on sides. Surface without microsculpture; setation yellow.

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

Abdomen parallel-sided, first three visible tergites with two basal lines, elevated area between lines impunctate. Punctuation 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, with only few modified pale setae ventrally. Aedeagus (Figs 8-10).

Female. Unknown to the author.

Differential diagnosis. *P. nairobianus* may be separated from *P. pedarius* by its longer antennae, different coloring of elytra, paler abdomen and different shape of the aedeagus.

Distribution. Kenya (Herman, 2001).

Philonthus natalensis Boheman, 1848

(Figs 11-14)

Philonthus natalensis Boheman, 1848: ?????????????????????????????????????

Type locality. Portus Natalensis.

Type material. I have not studied the original material of *P. natalensis*.

Material examined. Ethiopia: Bale 8km.W. of Dinshu, 0705 N. 3944 E. 3050m. xii. 1071, (2 ♂♂), (LHPC). Republic of South Africa: Natal, G. Reineck, (1 ♀), (ZMHB), Kapland, det. Dr. Rambousek, (1 ♂), (ZMHB).

Redescription. Body length 12.5 mm, length of fore body (to end of elytra) 5.5 mm.

Colouration: body uniformly black, abdomen violet-bluish iridescent, maxillary and labial palpi black-brown, ventral side of antennomere 1 and base of antennomeres 2-3 yellow-brown, dorsal side of antennomere 1 and remaining antennomeres and legs black.

Head transverse, wider than long (ratio 50 : 34), parallel-sided, between eyes with four coarse punctures, distance between medial punctures five times as large as distance between medial and lateral puncture, medial punctures distinctly shifted to the front. Eyes longer than temples (ratio 16 : 12), inner and posterior margins with several coarse punctures, temporal area with many variably large punctures. Surface without microsculpture.

Antennae reaching posterior third of pronotum when reclined. Antennomeres 1-4 and 11 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 as long as antennomere 3.

Pronotum highly convex, anterior angles obtusely rounded, bearing several of variably length bristles, posterior angles markedly rounded. Sides with one long black bristle in anterior third. Each dorsal row with four coarse punctures, distance between punctures 1-2 and 3-4 slightly larger than that between punctures 2-3. Each sublateral row with two punctures, puncture two shifted to the lateral margin. Surface with very fine microsculpture consisting of transverse waves.

Scutellum very densely and finely punctate, diameter of punctures slightly larger than eye-facets, interstices much smaller than puncture diameter. Setation longer and dark.

Elytra wider than long (ratio 63 : 58), parallel-sided. Punctuation fine and dense, diameter of punctures slightly larger than that on scutellum, separated by one or one and half puncture diameters. Surface without microsculpture; setation long, dense and brown.

Legs. Metatibia as long as metatarsus, metatarsomere 1 as long as metatarsomere 5, slightly shorter than metatarsomeres 2-4 combined.

Abdomen from visible tergite III very slightly narrowed anteriorly and posteriorly. First three visible tergites with two basal lines, elevated area between lines impunctate. Punctuation at base of all tergites denser than that on elytra, becoming finer and sparser towards posterior margin of each tergite. Surface without microsculpture; setation long and brown.

Male. Protarsomeres 1-3 moderately dilated and sub-bilobed, each covered with modified pale setae ventrally, protarsomere 4 narrower than preceding ones. Sternite IX (Fig. 14), aedeagus (Figs 11-13).

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

Differential diagnosis. *P. natalensis* is very close to *P. basicornis* from which it may be distinguished by its different coloring of elytra, shorter eyes, abdomen with violet-blue iridescence and different shape of the aedeagus.

Distribution. Ethiopia, Kenya, South Africa, Tanzania (Herman, 2001).

Philonthus natalensis ssp. *vittatus* Roth, 1851

Philonthus natalensis ssp. *vittatus* Roth, 1851:????????????????????????????

Type locality. Abyssinien.

Type material. I have not studied the original material of *P. natalensis* ssp. *vittatus*.

Material examined.: W. O. AFRICA: 1 spec., N. Galle, V. Erlanger, (LHPC).

Redescription. In all characteristic features, same as the typical species *P. natalensis* Boheman, 1848, only with red spot on each elytron.

Distribution. Ethiopia (Herman, 2001).

Philonthus nectarinia sp. nov.

(Figs 15-21)

Type locality. Zambia [N. Rhodesia], Abercorn 1800 m.

Type material. Holotype (♂): "Zambia [N. Rhodesia], Abercorn, 1800m, vii.1970, // *Philonthus nectarinia* spec. nov. Hromádka, det. [red oblong printed label]", (NMPC). Paratypes: (1 spec.): same data as in holotype, (NMPC); Ethiopia, Bale, 8.km. W. of Dinshu, 0706 N. 3944 E. 3.050m xii.1071, 2 spec., (NMPC).

Description. Body length 8.5 mm, length of fore body (to end of elytra) 3.9 mm.

Colouration. Head, pronotum, scutellum and abdomen uniformly black, elytra (Fig. 21) black with small red spot on each elytron, palpomeres 1-2 of both palps black, palpomere 3 brown-black, antennomere 1 and base of antennomere 2 brown-black, remaining antennomeres black, femora brown-yellow, tibiae black, inner side brown-yellow, tarsi black, slightly paler distally.

Head rounded, slightly wider than long (ratio 26 : 24), posterior angles bearing several short bristles. Between eyes with 4 punctures arranged in a straight line, distance between medial punctures 5 times as long as that between medial and lateral ones. Eyes longer than temples (ratio 12 : 10), posterior margin with two punctures. Temporal area with several variably large punctures.

Antennae long, slightly exceeding posterior margin of pronotum when reclined. Antennomeres 1-8 and 11 distinctly longer than wide, antennomeres 9-10 slightly longer than wide. Antennomere 1 longer than antennomere 11, antennomere 2 shorter than antennomere 3.

Pronotum as long as wide, slightly narrowed anteriorly. Anterior angles rectangular, obtusely rounded, posterior angles markedly rounded. Each dorsal row with four punctures, distance between punctures 1-2 and 3-4 equidistant, distance between punctures 2-3 slightly larger. Each sublateral row with two punctures, puncture two distinctly shifted to the lateral margin. Surface without microsculpture.

Scutellum coarsely and densely punctate, diameter of punctures much larger than eye-facets, interstices smaller than puncture diameter.

Elytra (Fig. 21) wider than long (ratio 50 : 42), widened posteriorly. Punctuation sparser and finer than that on elytra. Diameter of punctures smaller than that on scutellum, interstices mostly as large as puncture diameter or slightly larger. Surface without microsculpture; setation dark brown.

Legs. Metatibia as long as metatarsus. Metatarsomere 1 longer than metatarsomere 5, almost as long as metatarsomeres 2-4 combined.

Abdomen wide, from visible tergite III slightly narrowed anteriorly and posteriorly. First three visible tergites with two basal lines, elevated area between lines impunctate. Punctuation at base of all tergites denser and slightly 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, of heart-shaped. Sternite IX (Fig. 18), aedeagus (Figs 15-17).

Female. Protarsomeres 1-3 less dilated than in male, each covered with modified pale setae ventrally. Tergite X (Fig. 19), gonocoxite of female genital segment (Fig. 20).

Differential diagnosis. *P. nectarinia* sp. nov., is in habitus similar to *P. ustus*, from which it may be differentiated by its longer antennae, narrower head and slightly paler legs, from *P. natalensis* ssp *vittatus* by its longer antennae, shorter eyes, not iridescent abdomen, paler legs and from both by a different shape of the aedeagus.

Etymology. The name of this species, a noun in apposition, is the generic Latin name of the African bronze sun bird *Nectarinia kilimensis* Shelley, 1884.

Distribution. Zambia, Ethiopia.

***Philonthus pedarius* Cameron, 1950**
(Figs 22-24)

Philonthus pedarius Cameron, 1950: 37.

Type locality. Ruanda: Ninda, alt. 2150 m.

Type material. Paratype (♂): "Ruanda: Ninda, alt 2150 m (Ruhengeri), 18.-26.ix.1934, de Witte, Parc nat., Albert, Musée du Congo, *Philonthus affinis* Roth, var., *pedarius* P. Cameron, M. Cameron Bequest B. M. 1955-147. Tottenham 1956: 225, 276 (*Philonthus*; valid species: characters; Ruanda", [red oblong printed label], (BMNH).

Redescription. Body length 12.9 mm, length of fore body (to end of elytra) 6.5 mm.

Colouration Head and pronotum black, with slightly bronze hue, scutellum black-brown, elytra red-yellow, abdomen black, very slightly bluish iridescent. Maxillary and labial palpi and antennae black, femora and tibiae black, tarsi black-brown, paler distally.

Head wider than long (ratio 50 : 35), posterior angles obtusely rounded, bearing one long and many short black bristles. Between eyes with four coarse punctures arranged in a straight line.

Eyes large, much longer than temples (ratio 17 : 11). Posterior margin and entire temporal area coarsely and densely punctate, many coarse punctures reaching up to the middle of the posterior margin of head. Impunctate V-shaped middle area of head. Surface without microsculpture.

Antennae stout and relatively short, reaching posterior fourth of pronotum when reclined. Antennomeres 1-3 distinctly longer than wide, antennomere 11 slightly longer than wide, antennomere 4 as long as wide, antennomeres 5-10 slightly wider than long.

Pronotum flat, slightly bulging, wider than long (ratio 56 : 50) widest at middle, anterior angles obtusely rounded, bearing several variable long black bristles, posterior angles markedly rounded. Each dorsal row with four approximately equidistant punctures, each sublateral row with two coarse punctures, puncture two distinctly shifted to the lateral margin. Surface without microsculpture. Each side in anterior half bearing one long black and several short bristles, posterior half bearing several bristles.

Scutellum densely and coarsely punctured, diameter of punctures larger than eye-facets, interstices approximately as large as puncture diameter. Setation ginger and long.

Elytra wider than long (ratio 63 : 51), slightly widened posteriad. Punctuation coarse and dense, diameter of punctures larger than eye-facets, interstices smaller than puncture diameter. Surface without microsculpture; setation ginger, ventral side with many long and ginger bristles.

Legs. Metatarsus as long as metatibia, metatarsomere 1 longer than metatarsomere 5, almost as long as metatarsomeres 2-4 combined.

Abdomen wide, very slightly narrowed posteriad, first three visible tergites with two basal lines, elevated area between lines impunctate. Punctuation at base of all tergites finer and sparser than that on elytra, becoming sparser towards posterior margin of each tergite. Surface without microsculpture; setation darker than that on elytra.

Male. Protarsomeres 1-3 slightly dilated and sub-bilobed, each covered with modified pale setae ventrally, protarsomere 4 small, heart shaped. Aedeagus (Figs 22-24).

Female. Unknown to the author.

Differential diagnosis. *P. pedarius* may be separated from *P. nairobiensis* by its shorter antennae, different coloring of elytra, darker abdomen and different shape of the aedeagus.

Distribution. Rwanda (Herman, 2001).

***Philonthus plotosus* sp. nov.**

(Figs 25-28)

Type locality. Kilimandjaro, versant bud-est, Afrique or. Allemande.

Type material. Holotype (♂): "Kilimandjaro, versant bud-est, Afrique or. Allemande, Alluaud & Jeane, // Holotype *Philonthus plotosus* sp. nov. Hromádka det.. [red oblong printed label]", (NMPC).

Description. Body length 10.2 mm, length of fore body (to end of elytra) 4.9 mm.

Colouration. Body uniformly black, only elytra brown.

Head distinctly wider than long (ratio 43 : 32), sides behind eyes straight and slightly narrowed posteriad. Between eyes with four coarse punctures, distance between medial punctures six times as large as distance between medial and lateral puncture, medial punctures slightly shifted to the front. Posterior angles obtusely rounded, bearing several variably long black bristles. Eyes large, longer than temples (ratio 15 : 10), inner and posterior margins with many coarse punctures. Whole temporal area and wide practically to the middle of head with many, mostly setiferous punctures. Surface without microsculpture.

Antennae stout, reaching posterior fourth of pronotum when reclined. Antennomeres 1-3 and 11 longer than wide, antennomere 4 small and as long as wide, antennomere 5 slightly wider than long, antennomeres 6-10 distinctly wider than long. Antennomere 1 twice as long as antennomere 11, antennomere 2 shorter than antennomere 3.

Pronotum highly convex, wider than long (ratio 48 : 42), very slightly narrowed anteriorly, anterior angles very obtusely rounded, scarcely marked, posterior angles markedly rounded. Sides bearing several variably long bristles. Each dorsal row with four coarse, approximately equidistant punctures, each sublateral row with three punctures arranged in an oblique row. Surface with very fine microsculpture consisting of scattered transverse and oblique waves.

Scutellum very densely and coarsely punctured, diameter of punctures slightly larger than eye-facets, interstices by puncture diameter or slightly smaller.

Elytra wider than long (ratio 62 : 57), parallel-sided. Punctuation coarse and relatively dense, diameter of punctures slightly larger than that on scutellum, separated by one or one and half puncture diameters. Surface without microsculpture; setation brown.

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

Abdomen wide, from visible tergite III slightly narrowed posteriad. First three visible tergites with two basal lines, elevated area between lines impunctate. Punctuation at base of all tergites finer and denser than that on elytra, becoming sparser towards posterior margin of each tergite. Surface without microsculpture; setation of the same colouring as that on elytra.

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

Female. Unknown to the author.

Differential diagnosis. *P. plotosus* sp. nov. is similar to *P. dimidiaticornis*. It can be distinguished from the latter by its different coloring of antennae, wider pronotum and different shape of the aedeagus.

Etymology. The name of this species, a noun in apposition, is the Latin generic name of the East African Coral catfish *Plotosus lineatus* (Thunberg, 1787).

Distribution. Tanzania.

***Philonthus ustus* Fauvel, 1907**
(Figs 29-31)

Philonthus ustus Fauvel, 1907: 43

Type locality. Mombasa.

Type material. Holotype (♀): “// *ustus* Fauvel [white oblong label handwritten], TYPE [red oblong label], Mombaco, Afr. or. R.I.Sc.N.B. 17.470. Coll. Et det. A. Fauvel”, (IRSB).

Material examined. Zimbabwe: Meisetter Dist, [S. Rhodesia] 6.xii.1928, coll. R.H.R. Stevenson, C. E. Tottenham collection, B. M. 1974-587, compared with TYPE, (1 ♀), (BMNH). Kenya: 27.i.1995, S. of lac Naivasha, D. Trávníček lgt., (1 ♂), (JJRC).

Redescription. Body length 11.0 mm, length of fore body (to end of elytra) 5.5 mm.

Colouration. Head, pronotum, scutellum, abdomen and legs uniformly black, clypeus along anterior margin and antennal sockets narrowly yellow-brown, mandibles, maxillary and labial palpi brown, antennae black, antennomere one and base of antennomere two yellow-brown, elytra black, with small red oblique spot on each elytron.

Head distinctly wider than long (ratio 43 : 37), very slightly widened posteriad, eyes flat and longer than temples (ratio 14 : 11), between eyes with four coarse punctures, distance between medial and lateral punctures four times as large as distance between medial and lateral puncture. Posterior margin of eyes with four coarse punctures, from the end of eyes, in direction of the middle of pronotum, with many smaller punctures, posterior angles obtusely rounded, with many black bristles of unequal length, surface without microsculpture.

Antennae stout, reaching posterior fourth of pronotum when reclined, antennomeres 1-3 and 11 longer than wide, antennomeres 4-5 as long as wide, antennomeres 6-10 somewhat wider than long. Antennomere 1 almost twice longer than antennomere 11, antennomere 2 shorter than antennomere 3.

Pronotum slightly wider than long (ratio 50 : 47) slightly widened posteriad, anterior angles almost rectangular, bearing many black bristles of unequal length, sides with several bristles, each dorsal row with five coarse punctures, each sublateral row with two punctures, surface without microsculpture. In the original description, Fauvel writes that each dorsal row has four punctures, I saw the type and each dorsal row had five punctures.

Scutellum very finely and densely punctate, punctures equal in size to eye-facets, transverse distance between punctures one and half times larger than diameter of punctures.

Elytra wider than long (ratio 63 : 53), parallel-sided, slightly widened posteriad, punctuation very fine and dense, punctures somewhat larger than eye-facets, separated by puncture diameter in the transverse direction, anterior angles bearing one long dark bristle, sides bearing many short dark bristles, surface without microsculpture, setation brown-yellow, longer and denser.

Abdomen wide, from visible tergite III slightly narrowed posteriad, elevated area between two basal lines on the first three visible tergites very sparsely punctate, punctuation at base of all tergites similar to that on elytra, somewhat sparser towards posterior margin of each tergite, surface between punctures without microsculpture, setation similar to that on elytra, only somewhat sparser.

Legs. Metatarsus somewhat longer than metatibia, metatarsomere 1 slightly longer than metatarsomere 5, longer than metatarsomeres 2-3 combined.

Male. Protarsomeres 1-3 strongly dilated, sub-bilobed, heart-shaped, each densely covered with modified pale setae ventrally, protarsomere 4 much narrower than preceding ones. Aedeagus (Figs 29-31).

Differential diagnosis. *P. ustus* is similar to *P. nectarinia* sp. nov., from which it may be differentiated by its shorter antennae, wider head, darker legs and different shape of the aedeagus.

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

KEY TO SPECIES OF THE *PHILONTHUS SPINIPES* SPECIES GROUP

1	Each dorsal row of pronotum with four punctures.....	2
-	Each dorsal row of pronotum with five punctures.....	10
2	Elytra black, each elytron with a red spot	3
-	Elytra otherwise coloured.....	5
3	Antennae long, slightly exceeding posterior margin of pronotum when reclined, head slightly wider than long (ratio 26 : 24)	<i>P. nectarinia</i> sp. nov.
-	Antennae short.....	4
4	Antennae reaching posterior third of pronotum when reclined, head distinctly wider than long (ratio 50 : 34) .	<i>P. natalensis</i> ssp. <i>vittatus</i> Roth, 1851
-	Antennae reaching posterior fourth of pronotum when reclined, head less wider than long (ratio 42 : 37), (each dorsal row of pronotum with five punctures.....)	<i>P. ustus</i> Fauvel, 1907
5	Elytra from yellow to red-yellow	6
-	Elytra from brown to black.....	7
6	Elytra yellow-brown, distinctly golden-violet-orange iridescent, pronotum red-brown, abdomen brown	<i>P. nairobiensis</i> Cameron, 1950
-	Elytra red-yellow, pronotum black, abdomen black, bluish iridescent	<i>P. pedarius</i> Cameron, 1950
7	Elytra black.....	8
-	Elytra from brown to brown-black	9
8	Elytra black with bronze shine, antennomeres 1-3 yellow-brown, remaining antennomeres dark brown, eyes distinctly longer than temples (ratio 18 : 9), abdomen black-brown.....	<i>P. basicornis</i> Eppelsheim, 1895
-	Elytra black, eyes slightly longer than temples (ratio 16 : 12), abdomen black, violet-blue iridescent	<i>P. natalensis</i> Boheman, 1848
-	Elytra black, posterior angles and whole elytral epipleura dirty yellow, antennomeres 1-8 yellow, antennomeres 9-11 yellow-brown	<i>P. dendropicos</i> sp. nov.

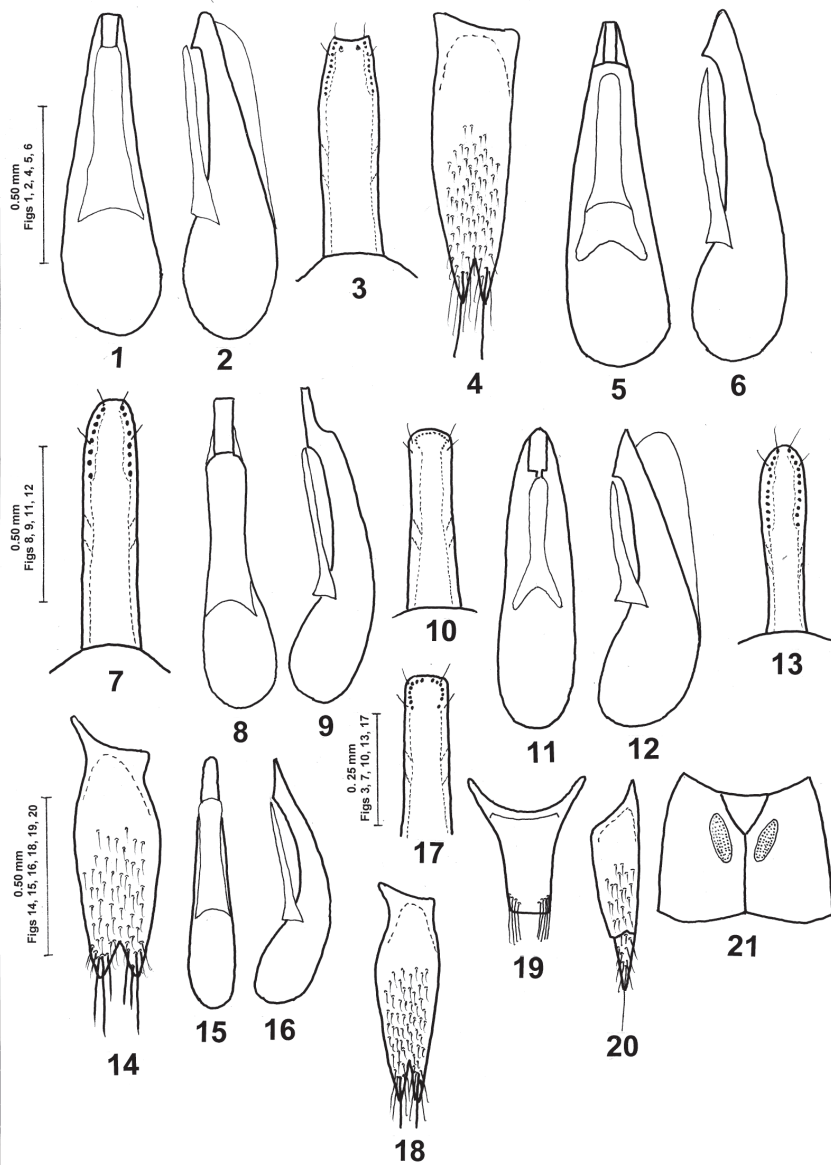
- 9 Elytra brown-black, antennomeres 1-5 yellow, remaining antennomeres dark brown
*P. dimidiaticornis* Fauvel, 1905
 - Elytra brown, whole antennae black *P. plotosus* sp. nov.
 10 Antennae reaching posterior fourth of pronotum when reclined, head slightly wider than long (ratio 43 : 37) ..
*P. ustus* Fauvel, 1907

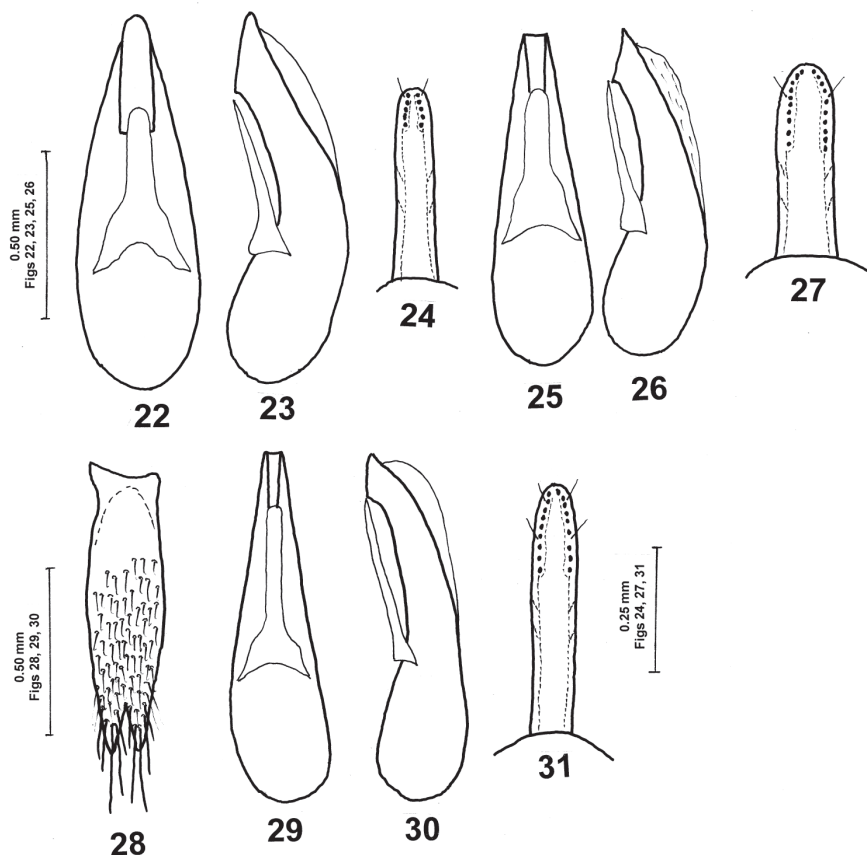
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TEXT FOR FIGURES

Figs. 1-35: Figs 1-4. *P. basicornis* Eppelsheim, 1895: 1- aedeagus, ventral view, 2- aedeagus, lateral view, 3- apex of paramere with sensory peg setae, ventral view, 4- male sternite IX, ventral view. Figs 5-7. *P. dimidiicornis* Fauvel, 1905: 5- aedeagus, ventral view, 6- aedeagus, lateral view, 7- apex of paramere with sensory peg setae, ventral view. Figs 8-10. *P. nairobiensis* Cameron, 1950: 8- aedeagus, ventral view, 9- aedeagus, lateral view, 10- apex of paramere with sensory peg setae, ventral view. Figs 11-14. *P. natalensis* Boheman, 1848: 11- aedeagus, ventral view, 12- aedeagus, lateral view, 13- apex of paramere with sensory peg setae, ventral view, 14- male sternite IX, ventral view. Figs 15 - 21. *P. nectarinia* sp. nov.: 15- aedeagus, ventral view, 16- aedeagus, lateral view, 17- apex of paramere with sensory peg setae, ventral view, 18- male sternite IX, ventral view, 19- female tergite X, ventral view, 20- gonocoxite of female genital segment, 21- elytra, dorsal view. Figs 22-24. *P. pedarius* Cameron, 1950: 22- aedeagus, ventral view, 23- aedeagus, lateral view, 24- apex of paramere with sensory peg setae, ventral view. Figs 25-28. *P. plotosus* sp. nov.: 25- aedeagus, ventral view, 26- aedeagus, lateral view, 27- apex of paramere with sensory peg setae, ventral view, 28- male sternite IX, ventral view. Figs 29-31. *P. ustus* Fauvel, 1907: 29- aedeagus, ventral view, 30- aedeagus, lateral view, 31- apex of paramere with sensory peg setae, ventral view. Figs 32-35. *P. dendropicos* sp. nov.: 32- aedeagus, ventral view, 33- aedeagus, lateral view, 34- apex of paramere with sensory peg setae, 35- male sternite IX, ventral view.

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