Linzer biol. Beitr.	46/1	687-694	31.7.2014

Four new species of the genus *Philonthus* from Afrotropical region (Coleoptera: Staphylinidae: Philonthina)

L. HROMÁDKA

A b s t r a c t : *Philonthus bubalornis* nov.sp. from Botswana, *Philonthus philetarius* nov. sp. from Nigeria, *Philonthus promerops* nov.sp. from Tanzania and *Philonthus upupa* nov.sp. from Liberia are described and male characters are illustrated.

K e y w o r d s : Coleoptera, Staphylinidae, Philonthina, *Philonthus*, Afrotropical region, taxonomy, new species.

Introduction

In the study presented here, four new species from Botswana, Tanzania, Nigeria and Liberia are described. *Philonthus promerops* nov.sp. belongs in the species group characterized in *P. circumcinctus* HROMÁDKA (2011), *Philonthus bubalornis* nov.sp., belongs in the species group characterized in *Philonthus. spinipes* HROMÁDKA (2012), *Philonthus upupa* nov.sp., belongs to the species group *Philonthus bicoloripennis* HROMÁDKA (2010) and *Philonthus philetarius* nov.sp., based on external characters and morphology of genitalia, is not possible to affiliate species to any hierherto defined species group.

Material, methods and measurements

The following abbreviations are used to refer to the collections mentioned:

BMNH.....Natural History Museum, London, United Kingdom (Max Barclay, Roger Booth)
cHPC .....Lubomír Hromádka, private collection, Praha (Czech Republic)
NMPC .....National Museum, Praha, Czech Republic (Jiří Hájek)

A double slash (//) is used to divide separate labels of the type specimens. All measurements were taken from the beetles with extended abdomen. Ratios mentioned in the descriptions can be coverted to lengths using the following formula: 20 units = 1 mm.

Results

***Philonthus bubalornis* nov. sp. (Figs 1-3)**

T y p e m a t e r i a l : Holotype ♂: "Botswana, (B 11) Moremi Reservs, 19°23´S 23°33E, 18.-20. 1972. //Holotype *Philonthus bubalornis* nov.sp. Hromádka, det., 2013, [red oblong label printed)" (NMPC). Paratype: same label data as holotype (cHPC).

D e s c r i p t i o n : Body length 9.1 mm, length of fore body (to end of elytra) 4.2 mm. Coloration: Head, pronotum, scutellum and abdomen black, elytra black-brown, maxillary and labial palpi, posterior half of mandibles black, anterior half of mandibles brown. Base of antennomere 2 yellow-brown, remaining antennomeres black, femora dark brown, tibiae and tarsi black.

Head wider than long (ratio 29 : 24), parallel-sided, posterior angles markedly rounded, each bearing two long black bristles. Between eyes only two setiferous punctures, each located near anterior third of each eye. Eyes very slightly convex, as long as temples, posterior margin of each eye with two coarse punctures arranged in vertical row. Surface with very fine microsculpture consisting of transverse waves.

Antennae long, reaching posterior sixth of pronotum when reclined. Antennomeres 1-3 and 11 distinctly longer than wide, antennomeres 4-9 slightly longer than wide, antennomere 10 as long as wide. Antennomere 1 twice longer than antennomere 11, antennomere 2 slightly shorter than antennomere 3.

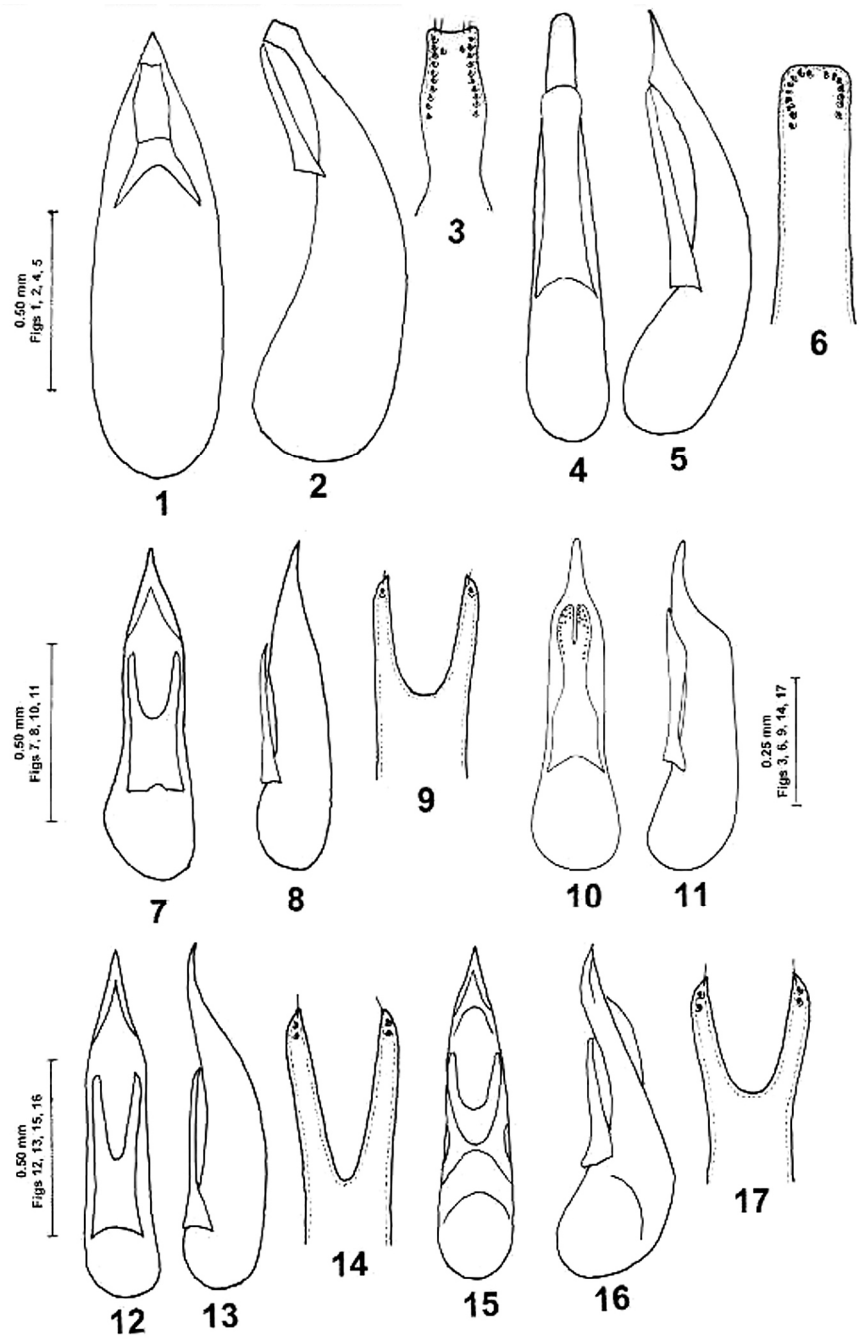
Pronotum slightly narrowed anteriad, anterior angles obtusely rounded, bearing several varying long black bristles, posterior angles markedly rounded. Each dorsal row with five punctures, distance between punctures 2-5 equidistant, distance between punctures 1-2 smaller than distance between previous punctures. Each sublateral row with one puncture, situated behind level of puncture three in dorsal row. Surface with microsculpture, more distinct than that on head.

Scutellum finely punctured, diameter of punctures slightly larger than eye-facets, separated by one puncture diameter or slightly larger.

Elytra wider than long (ratio 50 : 47), slightly widened posteriad. Punctation very dense and very fine, diameter of punctures as large as eye-facets, separated mostly smaller than diameter of one puncture. Longitudinal row of 4 coarser punctures situated at about midwidth of each elytron. Surface without microsculpture; setation very dense, brown.

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

Figs 1-3: *Philonthus bubalomis* nov.sp.: (**1**) aedeagus, ventral view,(**2**) aedeagus, lateral view, (**3**) apex of paramere with sensory peg setae, ventral view. **Figs 4-6**: *Philonthus nectarinia* HROMÁDKA, 2012: (**4**) aedeagus, ventral view, (**5**) aedeagus, lateral view, (**6**) apex of paramere with sensory peg setae, ventral view. **Figs 7-9**: *Philonthus philetarius* nov.sp.: (**7**) aedeagus, ventral view, (**8**) aedeagus, lateral view, (**9**) apex of paramere with sensory peg setae, ventral view. **Figs 10-11**: *Philonthus pseudoabyssinus* TOTTENHAM, 1940: (**10**) aedeagus, ventral view (**11**) aedeagus, lateral view. **Figs 12-14**: *Philonthus promerops* nov.sp.: (**12**) aedeagus, ventral view, (**13**) aedeagus, lateral view, (**14**) apex of paramere with sensory peg setae, ventral view. **Figs 15-17**: *Philonthus mlogosiensis* BERNHAUER, 1934: (**15**) aedeagus, ventral view, (**16**) aedeagus, lateral view, (**17**) apex of paramere with sensory peg setae, ventral view.



Abdomen wide, very gradually narrowed posteriad, first three visible abdominal tergites with two basal lines, elevated area between lines impunctate. Punctation at base of all tergites much sparser than that on elytra, becoming sparser towards posterior margin of each tergite. Surface without microsculpture, shiny; setation much sparser than that on elytra.

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

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

Comparative notes: *Philonthus bubalornis* nov.sp. is similar to *P. nectarinia* HROMÁDKA 2012, (Figs 4-6), from which it may be distinguished by the wider head, shorter eyes, much denser punctation of elytra, without red spot on each elytron, much denser punctation of abdomen and by the different shape of the aedeagus.

Etymology: The name of this species, a noun in apposition, is the Latin generic name of the African White-headed buffalo weaver *Bubalornis albirostris* (VIEILLOT 1817).

Distribution: Botswana.

***Philonthus philetarius* nov.sp. (Figs 7-9)**

Typematerial: Holotype ♂: "Nigeria, Umudike, 14.-27.ix.1960, J.M. Gregory //Holotypus *Philonthus philetarius* nov.sp. Hromádka det., 2013, [red oblong label printed]" (NMPC).

Description: Body length 8.3 mm, length of fore body (to end of elytra) 4.0 mm.

Coloration. Head black, pronotum and abdomen black-brown, elytra black brown, suture and posterior margin narrowly brown-red, both palpi and antennae black, femora black-brown, tibiae and tarsi black

Head wider than long (ratio 29 : 25), parallel-sided, posterior angles obtusely rounded, between eyes four punctures, medial punctures slightly shifted anteriad. Distance between medial punctures five times larger than distance between medial and lateral puncture.Eyes flat as large as temples, posterior margin with two punctures. Temporal area in posterior half with many small setiferous punctures. Surface with very fine irregular microsculpture here and there.

Antennae long, reaching almost posterior margin of pronotum when reclined. Antennomeres 1-3 and 11 distinctly longer than wide, antennomeres 4-8 slightly longer than wide, antennomeres 9-10 as long as wide.

Pronotum longer than wide (ratio 38 : 34), parallel-sided. Anterior angles conspicuously deflexed, vaguely obtusely rounded, posterior angles markedly rounded. Each dorsal row with five approximately equidistant punctures, each sublateral row with two small punctures arranged in a row parallel to the dorsal row and half way between it and side. Surface with fine microsculpture consisting of transverse waves.

Scuttelum very finely and densely punctured, diameter of punctures slightly larger than eye-facets, separated by one puncture diameter or smaller.

Elytra wider than long (ratio 48 : 40), very slightly widened posteriad. Punctation coarser

than that on scutellum, separated mostly by one puncture diameter, smaller here and there. Surface without microsculpture; setation dark brown.

Legs. Metatarsus longer than metatibia (ratio 30 : 27), metatarsomere 1 longer than metatarsomere 5 and than metatarsomeres 2-3 combined.

Abdomen wide, very gradually narrowed posteriad, first three visible abdominal tergites with two basal lines, elevated area between lines very densely and finely punctured. Punctation at base of all tergites extremally finely and densely punctured, diameter of punctures as large as eye-facets, separated mostly smaller than one puncture diameter, becoming slighly 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 smaller than preceding ones. Aedeagus (Figs 7-9).

Female. Unknown.

C o m p a r a t i v e n o t e s : *Philonthus philetarius* nov.sp. is similar to *P. pseudoabyssinus* TOTTENHAM 1940, (Figs 10-11), but differs in having narrower head, densely and finely punctured of elytra and abdomen and by the different shape of the aedeagus.

E t y m o l o g i e : The name of this species, a noun in apposition, is the Latin generic name of the African Sociable weaver *Philetarius socius* (LATHAM 1790).

D i s t r i b u t i o n : Nigeria.

***Philonthus promerops* nov.sp. (Figs 12-14)**

T y p e m a t e r i a l : Holotype ♂: "Uru north, env, 1750 m, 16 km N of Moshi, v.2010, Milan Kuboň lgt., //Holotype *Philonthus promerops* nov.sp. Hromádka det., 2013, [red oblong label printed]" (cHPC).

D e s c r i p t i o n : Body length 6.5 mm, length of fore body (to end of elytra) 2.6 mm. Coloration. Head black, pronotum black-brown, scutellum dark brown, elytra black-brown, posterior margin and suture narrowly yellow-brown, whole epipleura wide yellow-brown, abdomen black-brown, posterior margin of all tergites yellow and whole paratergites yellow-brown. Maxillary and labial palpi brown-yellow, antennomeres 1-2 and base of antennomere 3 yellow-brown, remaining antennomeres brown, femora and tarsi yellow-brown, tibiae darker.

Head rounded, wider than long (ratio 18 : 15), posterior angles markedly rounded bearing two long black bristles. Four coarse punctures between eyes, lateral punctures slightly shifted anteriad, distance between medial punctures five times larger than distance between medial and lateral puncture. Eyes flat, longer than temples (ratio 7.5 : 5), posterior margin with one coarse puncture, temporal area with several varying large punctures. Surface with very fine microsculpture consisting of transverse waves.

Antennae reaching posterior fifth of pronotum when reclined. Antennomeres 1-3 and 11 distinctly longer than wide, antennomeres 4-10 as long as wide.

Pronotum longer than wide (ratio 25 : 22), slightly narrowed anteriad, anterior angles conspicuously deflexed, vaguely obtusely rounded, posterior angles markedly rounded. Each dorsal row with five approximately equidistant punctures, distance between puncture five and posterior margin of pronotum as large as the length of antennomere 1. Each

sublateral row with two punctures, puncture two shifted to the lateral margin. Sides in anterior third bearing one long black bristle. Surface with microsculpture similar to that on head.

Scutellum very densely and very finely punctured, diameter of punctures slightly larger than eye-facets, separated smaller than one puncture diameter.

Elytra wider than long (ratio 33 : 29), slightly widened posteriad. Punctation fine, diameter of punctures slightly larger than that on scutellum, separated by one or one and half puncture diameters, somewhere two punctures diameter. Surface without microsculpture; setation brown-yellow.

Legs. Metatibia as long as metatarsus, metatarsomere 1 slightly longer than metatarsomere 5, 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 densely and finely punctate. Punctation of visible tergites extremaly finely and densely punctate. Diameter of punctures smaller than eye-facets, mostly of punctures contiquous. 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 narrower than preceding ones. Aedeagus (Figs 12-14).

Female. Unknown.

C o m p a r a t i v e n o t e s : *Philonthus promerops* nov.sp. may be distinguished from the similar *P. mlogosiensis* BERNHAUER 1934, (15-17). by the narrower head, paler antennomeres 1-2, longer eyes, finer punctation of elytra and by the different shape of the aedeagus.

E t y m o l o g y : The name of this species, a noun in apposition, is the Latin generic name of the African Cape sugarbird *Promerops umbretta* (LINNAEUS 1758).

D i s t r i b u t i o n : Tanzania.

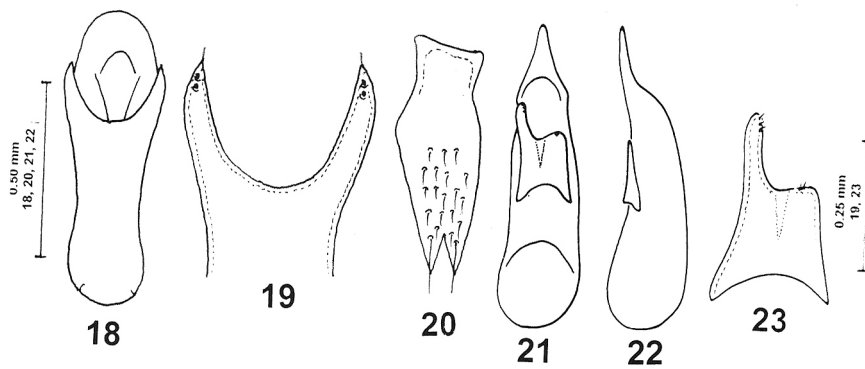
***Philonthus upupa* nov.sp. (Figs 18-20)**

T y p e m a t e r i a l : Holotype ♂: "Liberia: Mt. Nimba. Grassfield, 16-25.ix.1979, lowland forest 500 m, in human faces //HOLOTYPE *Philonthus upupa* nov.sp. Hromádka det., [red oblong printed label]" (BMNH). Paratype ♀: the same label data as in holotype [red oblong printed label] (cHPC).

D e s c r i p t i o n : Body length 7.8 – 8.0 mm, length of fore body (to end of elytra) 3.7 mm.

Coloration. Head black with greenish-blue hue, pronotum dark brown with reddish-gold lustre, elytra brown-yellow, abdomen, legs and labrum yellow-brown, mandibles brown-yellow, maxillary and labial palpi yellow-brown, terminal palpomere of both palpi slightly lighter, antennomere 1 and base of antennomere 2 brown, remaining antennomeres black.

Head rounded, (ratio 26 : 22.5), slightly narrowed posteriad, eyes large and slightly convex, much longer than temples (ratio 12 : 7.5), posterior angles indistinct, between eyes 6 coarse approximately equidistant punctures, temporal area with several fine punctures, surface with very fine and dense microsculpture consisting of transverse and obligue waves.



Figs 18-20: *Philonthus upupa* nov.sp.: (**18**) aedeagus ventral view, (**19**) apex of paramere with sensory peg setae, ventral view, (**20**) male sternite IX, ventral view. **Figs 21-23**: *Philonthus ichor* TOTTENHAM, 1961: (**21**) aedeagus, ventral view, (**22**) aedeagus, lateral view, (**23**) paramere with sensory peg setae, ventral view.

Antennae long, reaching almost posterior margin of pronotum when reclined, all antennomeres longer than wide, antennomere 1 almost twice longer than antennomere 11, antennomere 2 shorter than antennomere 3.

Pronotum as wide as long, slightly narrowed anteriad, anterior angles almost rectangular, posterior angles markedly rounded, each dorsal row with 6 equidistant punctures, each sublateral row with 3 punctures, puncture 1 slightly shifted to the middle, surface with distinct microsculpture.

Scutellum finely and sparsely punctate, surface with very fine microsculpture, setation yellow-brown.

Elytra almost quadrate (ratio 37 : 35), very slightly widened posteriad, anterior angles bearing several varying long bristles, punctation fine and dense, diameter of punctures equal in size to eye-facets, separated by two puncture diameteres in transverse direction Surface between punctures lacks microsculpture, sides densely hairy; setation yellow-brown.

Legs. Metatibia slightly longer than metatarsus (ratio 25 : 23), metatarsomere 1 as long as metatarsomere 5 and as long as metatarsomeres 2-3 combined.

Abdomen slightly narrowed posteriad beginning with visible tergite III, first three visible tergites with two basal lines, elevated area between lines impunctate, punctation at base of all tergites similar to that on elytra, becoming slightly sparser towards posterior margin of each tergite, surface lacks microsculpture, setation similar to that on elytra.

Male. Protarsomeres 1-3 only slightly dilated, protarsomere 4 narrower than preceding ones, sternite IX (Fig. 20), aedeagus (Figs 18-19).

Female. Protarsomeres 1-3 slighty dilated, similar to that on male, protarsomere 4 very narrow.

C o m p a r a t i v e n o t e s : *Philonthus upupa* nov.sp. is similar to *P. ichor* TOTTENHAM, 1961, (Figs 21-23), may be distinguished by the longer and slender antennae, shorter eyes, head and pronotum with greenish-blue or reddish-gold lustre, darker pronotum, denser punctation of abdomen and by the different shape of the aedeagus.

E t y m o l o g y : The name of this species, a noun in apposition, is the Latin generic name of the African and European hoopoe *Upupa epops* LINNAEUS 1758.

D i s t r i b u t i o n : Liberia.

Acknowledgements

I wish to express my thanks to Max Barclay and Roger Booth (Natural History Museum, London, United Kingdom) and Milan Kuboň (Ostrava, Czech Republic) for the loan of African material for identification, Jiří Janák (Rtyně nad Bílinou, Czech Republic) for valuable comments on the manuscript.

Zusammenfassung

Philonthus bubalornis (Botswana) nov.sp., *Philonthus promerops* nov.sp. (Tansania), *Philonthus philetatius* nov.sp. (Nigeria) und *Philonthus upupa* nov.sp. (Liberia) werden beschrieben und von den ähnlichen *P. nectarinia* HROMÁDKA 2012, *P. mlogosiensis* BERNHAUER 1934, *P. pseudoabyssinus* TOTTENHAM 1940 und *P. ichor* TOTTERNHAM 1961 unterschieden. Die äußeren sowie die männlichen Geschlechtsmerkmale der vier Arten werden abgebildet.

Reference

BERNHAUER M. (1934): The staphylininid fauna of South Africa. — Annals of the South African Museum **30**: 481-509.

HROMÁDKA L. (2011): Revision of the Afrotropical species of the *Philonthus circumcinctus* species group (Coleoptera: Staphylinidae: Philonthina). — Klapalekiana **47**: 173-200.

HROMÁDKA L. (2012): Revision of Afrotropcial species of the *Philonthus spinipes* species group (Coleoptera: Staphylinidae: Philonthina). — Studies and Reports, Taxonomical Series **8** (1-2): 175-192.

TOTTENHAM C.L. (1949): Studies of the genus *Philonthus* STEPHENS (Coleoptera). — Transaction of the Royal Entomological Society of London **100** (12): 291-362.

TOTTENHAM C.L. (1961): Coleoptera Staphylinidae: Xantholinae, Staphylininae, Tachyporinae and Aleocharinae. — In: Le Parc National du Nikolo-Koba, fasc. II. Mémoires de l´Institut Français d´Afrique Noire **62**: 203-213.

Author´s address: Lubomír HROMÁDKA
Anny Letenské 7
CZ-120 00 Praha 2, Czech Republic
E-mail: hromadkal@seznam.cz