

**New Philonthina species from Tanzania
(Coleoptera: Staphylinidae: Philonthini: Philonthina)**

**Nové druhy drabčíků z Tanzánie
(Coleoptera: Staphylinidae: Philonthini: Philonthina)**

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Taxonomy, new species, Coleoptera, Staphylinidae, Staphylinini, Philonthina, *Gabrius*, *Hesperus*, *Philonthus*, Tanzania, Afrotropical Region

Abstract. *Gabrius anastomus* sp. nov., *Hesperus smithi* sp. nov. and *Philonthus takanoi* sp. nov. (Coleoptera: Staphylinidae) are described, illustrated and compared with related species.

INTRODUCTION

The genus *Gabrius* Stephens, 1829 is distributed in all major zoogeographical regions. The genus includes more than 90 species in the Afrotropical region. The genus *Hesperus* Fauvel, 1874 includes more than two hundred species from all zoogeographical regions. From the Afrotropical region 29 species have been recorded (Hromádka 2012). The genus *Philonthus* Stephens, 1829 is the largest genus in the subtribe Philonthini with currently more than 1550 species worldwide and represented in the Afrotropical region by approximately 500 species.

Three new species, *Gabrius anastomus* sp. nov., *Hesperus smithi* sp. nov. and *Philonthus takanoi* sp. nov. are described below, from material recently collected in Tanzania by Mr. H. Takano and Mr. R. E. L. Smith, and housed in the Natural History Museum, London (BMNH).

MATERIAL AND METHODS

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

BMNH The Natural History Museum, London (British Museum of Natural History), United Kingdom (Maxwell V. L. Barclay and Roger Booth).

LHPC private collection of Lubomír Hromádka, Prague, Czech Republic.

A double slash (//) is used to divide labels of type specimens. All measurements were taken from beetles with extended abdomen. All ratios mentioned in the descriptions are dimensionless but can be converted to lengths in mm: 20 units = 1 mm.

The morphological studies were conducted using a SMZ 168 TL Zoom stereoscopic microscope.

DESCRIPTIONS

***Gabrius anastomus* sp. nov.**
(Figs 1–3, 18, 21, 24)

Type locality. Tanzania, Mount Meru 1915 m, Arusha N.P., S03°14'46", E36°49'49".

Type material examined. Holotype ♂: TANZANIA 1915m, Mount Meru, Arusha N.P. [Na-

tional Park], S03°14'46";E36°49'49", 2.-4.iv.[20]12, Dung Pitfall, leg. Smith,R & Takano,H // Gabrius [handwritten], Det. A. Brunke 2013 [printed] // HOLOTYPUS, *GABRIUS* *Step.*, **anastomus** sp. nov., Hromádka, det., 2013. [red rectangular label, printed] // BMNH(E), 2012-92, 1233098 [printed] (BMNH). Paratype ♂: same label data as holotype (except 7-figure unique number) (LHPC).

Description. Body length 6.5 mm, length of fore body (to end of elytra) 3.9 mm.

Colouration. Head black, pronotum, scutellum, elytra and abdomen brown-black, posterior margin of all tergites narrowly brown-red. Maxillary and labial palpi, antennomeres 1–2 and base of antennomere 3 brown-yellow, remaining antennomeres dark brown, mandibles brown, femora and tarsi dirty yellow, tibiae darker.

Head longer than wide (ratio 21:19), parallel-sided, posterior angles markedly rounded, bearing one long and several short black bristles. Between eyes with four coarse punctures, medial punctures slightly shifted anteriorly, distance between medial punctures four times the distance between medial and lateral puncture. Eyes small and flat, less than half as long as temples, posterior margin with one coarse puncture, temporal area impunctate. Surface with very fine microsculpture consisting of transverse waves.

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

Pronotum longer than wide (ratio 27:23), parallel-sided, anterior angles conspicuously deflexed, vaguely obtusely rounded, posterior angles markedly rounded. Each dorsal row with six approximately equidistant punctures, each sublateral row with two punctures, puncture two shifted toward lateral margin. Surface without microsculpture.

Scutellum finely and densely punctate, diameter of punctures almost as large as eye-facets, separated by one puncture diameter or slightly more.

Elytra as long as wide, slightly widened posteriorly. Punctuation fine and dense, diameter of punctures larger than that on scutellum, separated by one puncture diameter or slightly less. Surface without microsculpture; setation brown-yellow.

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

Abdomen very gradually narrowed posteriorly. First three visible tergites with two basal lines, elevated area between lines with scattered punctures. Punctuation at base of all tergites finer than that on elytra, becoming sparser towards posterior margin of each tergite. Surface without microsculpture; setation similar to that of elytra.

Male. Aedeagus (Figs 1–3).

Female. Unknown to the author.

Differential diagnosis. *Gabrius anastomus* sp. nov., may be distinguished from the most similar *G. agiliformis* Tottenham, 1956 (Figs 4–6) by the longer head and elytra, darker colouration and denser punctuation of elytra and by the different shape of the aedeagus (see Tottenham 1956).

Distribution. North-western Tanzania (Fig. 24).

Name derivation. The name of this species, a noun in apposition, is the Latin generic name of the African Openbill Stork *Anastomus lamelligerus* Temminck, 1823.

***Hesperus smithi* sp. nov.**
(Figs 7–8, 19, 22, 24)

Type locality. Tanzania, Amani, Usambara Mts.

Type material examined. Holotype ♂: TANZANIA vii.[20]05, Amani, Usambara Mts., Pit-fall Trap, UDSM coll. [printed] // *Hesperus* [handwritten], Det. A. Brunke 2013 [printed] // HOLOTYPE, *HESPERUS* Fauvel, **smithi** sp. nov., Hromádka, det., 2013. [red rectangular label, printed] // BMNH(E), 2012-92, 1198954 [printed] (BMNH).

Description. Body length 11.0 mm, length of fore body (to end of elytra) 5.3 mm.

Colouration. Head black, in anterior half golden iridescent, pronotum black-brown, bluish-golden iridescent, scutellum dark brown, elytra and abdomen straw-coloured, maxillary and labial palpi, antennomeres 1–3 and legs yellow, remaining antennomeres dark brown, mandibles yellow-brown.

Head wider than long (ratio 45:32), very slightly narrowed posteriad, posterior angles rounded, bearing one long and several short black bristles. Clypeus medially with four punctures arranged in shape of a square. Wide impunctate midline V-shaped, each side with several irregular coarse punctures. Eyes slightly convex, longer than temples (ratio 16:12), surface without microsculpture.

Antennae short, reaching posterior third of pronotum when reclined. Antennomeres 1–3 and 11 distinctly longer than wide, antennomeres 4–6 slightly longer than wide, antennomere 7 as long as wide, antennomeres 8–10 slightly wider than long. Antennomere 3 longer than antennomere 2, antennomere 1 more than twice as long as antennomere 11.

Pronotum approximately as long as wide, parallel-sided, anterior angles conspicuously deflexed, vaguely obtusely rounded, with several coarse punctures and bearing variably long bristles, posterior angles markedly rounded. Each dorsal row with ten coarse approximately equidistant punctures. Impunctate midline wide, between midline and lateral margin with numerous, coarse, irregularly arranged punctures. Surface without microsculpture.

Scutellum very coarsely punctate, diameter of punctures larger than eye-facets, separated by much less than a puncture diameter in transverse direction.

Elytra wider than long (ratio 60:57), slightly arcuately widened posteriad. Punctuation coarse and relatively sparse, diameter of punctures much larger than eye-facets, separated by one puncture or one and a half puncture diameters. Surface without microsculpture; setation yellow.

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

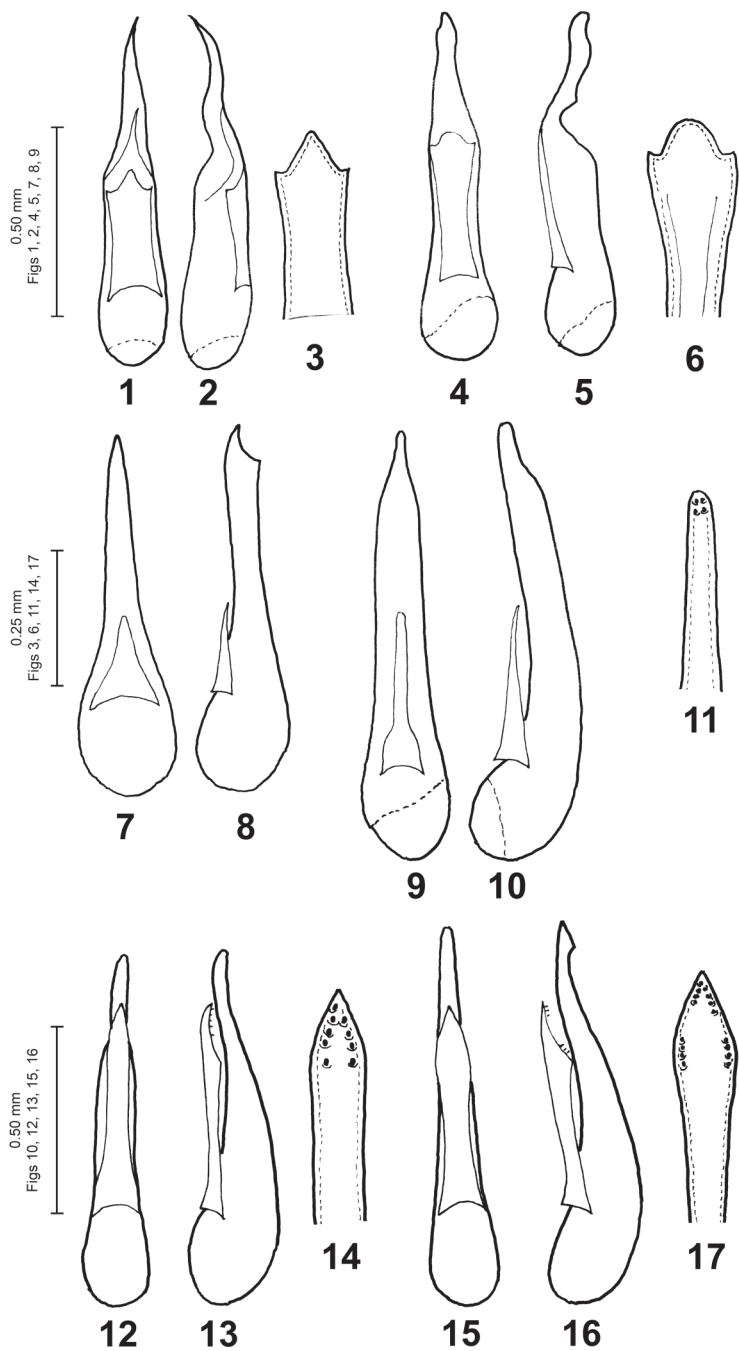
Abdomen wide, very gradually narrowed posteriad. Punctuation at base of all tergites denser than that on elytra, becoming sparser towards posterior margin of each tergite. Surface between punctures without microsculpture; setation similar to that on elytra.

Male. Protarsomeres 1–3 slightly dilated, each covered with modified pale setae ventrally, protarsomere 4 narrower than preceding ones, heart-shaped. Aedeagus (Figs 7–8).

Female. Unknown to the author.

Differential diagnosis. Among the species with yellow elytra, *Hesperus smithi* sp. nov. may be distinguished from the similar species *H. hawaii* Hromádka, 2013 by the shorter antennae, pronotum and elytra, sparser punctuation of abdomen and the different shape of the aedeagus (see Figs 9–11) (see Hromádka 2013a).

Distribution. North-western Tanzania (Fig. 24).



Name derivation. The species is named in honour of Mr. Richard E. L. Smith, Herefordshire, United Kingdom, who has made great contributions to the study of the insect fauna of the African mountains, and collected many new and interesting species in Tanzania.

***Philonthus takanoi* sp. nov.**
(Figs 12–14, 20, 23, 24)

Type locality. Tanzania, Mount Meru, 2486 m, Arusha, S03°14'32", E36°47'30".

Type material examined. Holotype ♂: TANZANIA 2486m, Mount Meru, Arusha N.P. [National Park], S03°14'32";E36°47'30", 2.-4.iv.[20]12 Dung Pitfall, leg. Smith,R & Takano,H // HOLOTYPE, *PHILONTHUS* (s. str.), **takanoi** sp. nov., Hromádka, det., 2013 [red rectangular label, printed] // BMNH(E), 2012-92, 1233306 [printed] (BMNH). Paratypes (7 spec.): same label data as holotype (except 7-figure unique number) (BMNH, LHPC).

Description. Body length 7.9 mm, length of fore body (to end of elytra) 3.6 mm.

Colouration. Head black, pronotum black-brown, elytra dark brown, posterior margin, suture and epipleura narrowly brown-red, abdomen black-brown, rainbow iridescent. Maxillary and labial palpi black-brown, base of antennomere 2 yellow-brown, remaining antennomeres black-brown. Femora brown-yellow, tibiae dark brown, tarsi brown, paler distally.

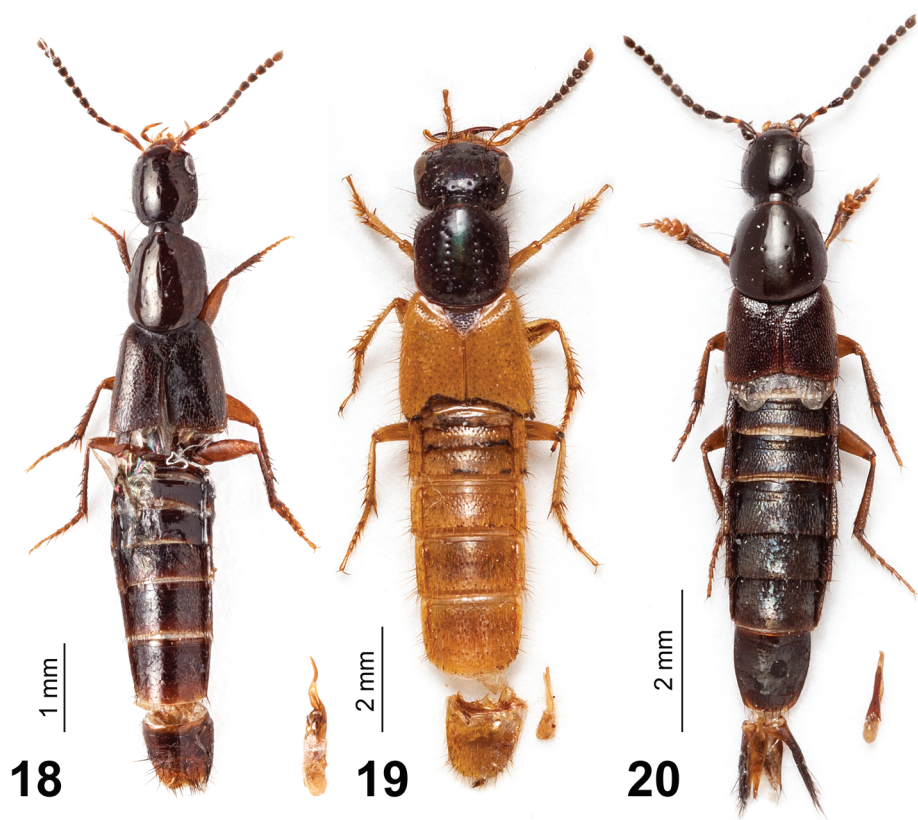
Head square, hardly wider than long (ratio 24:23), parallel-sided. Posterior angles obtusely rounded, bearing two long black bristles. Between eyes with four punctures, arranged in a straight line, distance between medial punctures five times as large as distance between medial and lateral puncture. Eyes flat, slightly shorter than temples (ratio 8:10), posterior margin with two punctures, temporal area with scattered punctures. Surface with very fine microsculpture consisting of transverse waves.

Antennae long, reaching posterior margin of pronotum when reclined. All antennomeres longer than wide, antennomeres 1–3 and 11 distinctly longer than wide, antennomeres 4–10 slightly longer than wide.

Pronotum as long as wide, anterior angles conspicuously deflexed, vaguely obtusely rounded, posterior angles markedly rounded. Each dorsal row with four approximately equidistant punctures, each sublateral row with two punctures, puncture two shifted slightly laterad. Surface with microsculpture similar to that on head.

Figs 1–17. 1–3. *Gabrius anastomus* sp. nov.: 1 – aedeagus, ventral view, 2 – aedeagus, lateral view, 3 – apex of paramere; 4–6. *G. agiliformis* Tottenham, 1956: 4 – aedeagus, ventral view, 5 – aedeagus, lateral view, 6 – apex of paramere; 7–8. *Hesperus smithi* sp. nov.: 7 – aedeagus, ventral view, 8 – aedeagus, lateral view; 9–11. *H. hawaii* Hromádka, 2013: 9 – aedeagus, ventral view, 10 – aedeagus, lateral view, 11 – apex of paramere with sensory peg setae; 12–14. *Philonthus takanoi* sp. nov.: 12 – aedeagus, ventral view, 13 – aedeagus, lateral view, 14 – apex of paramere with sensory peg setae; 15–17. *P. mifanus* Tottenham, 1956: 15 – aedeagus, ventral view, 16 – aedeagus lateral view, 17 – apex of paramere with sensory peg setae.

Obr. 1–17. *Gabrius anastomus* sp. nov.: 1 – aedeagus, ventrální pohled, 2 – aedeagus, laterální pohled, 3 – apikální část paramery; 4–6. *G. agiliformis* Tottenham, 1956: 4 – aedeagus, ventrální pohled, 5 – aedeagus, laterální pohled, 6 – apikální část paramery; 7–8. *Hesperus smithi* sp. nov.: 7 – aedeagus, ventrální pohled, 8 – aedeagus, laterální pohled; 9–11. *H. hawaii* Hromádka, 2013: 9 – aedeagus, ventrální pohled, 10 – aedeagus, laterální pohled, 11 – apikální část paramery se smyslovými sensilami; 12–14. *Philonthus takanoi* sp. nov.: 12 – aedeagus, ventrální pohled, 13 – aedeagus, laterální pohled, 14 – apikální část paramery se smyslovými sensilami; 15–17. *P. mifanus* Tottenham, 1956: 15 – aedeagus, ventrální pohled, 16 – aedeagus laterální pohled, 17 – apikální část paramery se smyslovými sensilami.



HOLOTYPE
GABRIUS Step.
anastomus sp. nov.
Hromádka, det., 2013.

Gabrius

Det. A. Brunke 2013
TANZANIA 1915m
Mount Meru, Arusha N.P.
S03°14'46"E36°49'49"
2-4.iv.12 Dung Pitfall
leg. Smith, R & Takano, H

BMNH(E)
2012-92
1233098

21

HOLOTYPE
HESPERUS Fauvel
smithi sp. nov.
Hromádka, det., 2013.

Hesperus

Det. A. Brunke 2013
TANZANIA vii.05
Amani, Usambara Mts.
Pitfall Trap UDSM coll.

BMNH(E)
2012-92
1198954

22

HOLOTYPE
PHILONTHUS (s. str.)
takanoi sp. nov.
Hromádka, det., 2013

TANZANIA 2486m
Mount Meru, Arusha N.P.
S03°14'32"E36°47'30"
2-4.iv.12 Dung Pitfall
leg. Smith, R & Takano, H

BMNH(E)
2012-92
1233306

23

Figs 18–23. 18, 21 – *Gabrius anastomus* sp. nov., 19, 22 – *Hesperus smithi* sp. nov., 20, 23 – *Philonthus takanoi* sp. nov.; 18–20 – habitus, dorsal view, 21–23 – labels.

Figs 18–23. 18, 21 – *Gabrius anastomus* sp. nov., 19, 22 – *Hesperus smithi* sp. nov., 20, 23 – *Philonthus takanoi* sp. nov.; 18–20 – habitus, dorzální pohled, 21–23 – lokální štítky.



Fig. 24. Distribution of *Gabrius anastomus* sp. nov., *Hesperus smithi* sp. nov. and *Philonthus takanoi* sp. nov. in Tanzania.
Obr. 24. Rozšíření druhů *Gabrius anastomus* sp. nov., *Hesperus smithi* sp. nov. a *Philonthus takanoi* sp. nov. v Tanzanii.

Scutellum finely and densely punctate, diameter of punctures approximately as large as eye-facets, separated by less than one puncture diameter.

Elytra shorter than wide (ratio 32:38), parallel-sided. Punctuation fine and dense, diameter of punctures slightly larger than those on scutellum, separated by less than one puncture diameter, punctures slightly confluent in places. Surface without microsculpture; setation brown.

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

Abdomen wide, from third visible tergite slightly narrowed posteriad. First three visible tergites with two basal lines, elevated area between lines punctate. Punctuation at base of all tergites coarser and denser than that on elytra, punctures mostly drop shaped, becoming sparser towards posterior margin of each tergite. Surface without microsculpture; setation similar to that on elytra.

Male. Protarsomeres distinctly dilated and sub-bilobed, each covered with modified pale setae ventrally, protarsomere 4 much smaller than preceding ones, heart shaped. Aedeagus (Figs 12–14).

Female. Protarsomeres 1–3 less dilated than those of male, each covered with modified pale setae ventrally.

Differential diagnosis. *Philonthus takanoi* sp. nov. belongs to the *Philonthus rudipennis* species group (Hromádka 2013b) because of the tooth-like pegs on the paramere when viewed laterally. Within this group, it is similar to *P. mifanus* Tottenham, 1956, from which it differs by the wider elytra, much denser punctuation of the abdomen and by the different shape of the aedeagus (Figs 15–17) (see Tottenham 1956).

Distribution. North-western Tanzania (Fig. 24).

Name derivation. It is my pleasure to dedicate this new species to Mr. Hitoshi Takano (BMNH), who collected the type specimens, as well as many other new and interesting species during his explorations and studies in Africa.

ACKNOWLEDGEMENTS. I wish to express my thanks to Maxwell V. L. Barclay and Roger Booth (both BMNH) for the loan of the material from Tanzania, and to Maxwell V. L. Barclay for technical help with the manuscript. The collecting and study of the material from Tanzania was made possible thanks to the support of the African Natural History Research Trust (Hereford, UK) and Richard Smith.

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SOUHRN

V této práci popisují tři nové druhy drabčků z Tanzánie. *Gabrius anastomus* sp. nov. se nejvíce podobá *G. agiliformis* Tottenham, 1956 (obr. 4–6). *Hesperus smithi* sp. nov., který patří mezi druhy se žlutými krovkami, je nejbližší *H. havai* Hromádka, 2013 (obr. 9–11). Dále je popsán *Philonthus takanoi* sp. nov., který patří do druhové skupiny *Philonthus rudipennis* (Hromádka 2013b), která je charakteristická přítomností set ve tvaru vyčnávajícího zoubku na paramere. V této skupině je nejbližší druhu *P. mifanus* (Tottenham, 1956), viz obr. 15–17.