# New species of the genus Philonthus from Tanzania (Coleoptera: Staphylinidae: Philonthini) 

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#### Abstract

Three new species of the genus Philonthus Stephens, 1829 (Coleoptera: Staphylinidae) are described as follows: Philonthus clanga sp. nov. (Tanzania), Philonthus irania sp. nov. (Tanzania) and Philonthus macronectes sp. nov. (Tanzania). All the species are described, illustrated and compared with related species.


## INTRODUCTION

In the study presented here, three new species of the genus Philonthus from Tanzania are described. Philonthus clanga sp. nov., belongs to the P. longicornis species group characterized in Hromádka (2012), Philonthus irania sp. nov., belongs to the P. politus species group characterized in Hromádka (2013), Philonthus macronectes sp. nov., belongs to the $P$. rudipennis species group characterized in Hromádka (2013). This material was collected on a Natural History Museum expedition to Tanzania.

## MATERIAL AND METHODS

The specimens studied are deposited in the following collections;
BMNH Natural History Museum , London, United Kingdom (Maxwell Barclay, Roger Booth);
LHPC Lubomír Hromádka, private collection, Praha, Czech Republic.
Separate labels are divided in the text by a double slash (//). All measurements were taken from beetles with their abdomen stretched. Ratios mentioned in the descriptions can be converted to lengths as 20 units $=1 \mathrm{~mm}$. The morphological studies were conducted by using the SMZ 168 TL Zoom stereoscopic microscope (Italy).

## RESULTS

## Philonthus clanga sp. nov.

(Fig. 1)

Type locality. Tanzania, Mt. Longido 1807 m .
Type material.Holotype ( $\delta^{\top}$ ): Tanzania, Mt. Longido $1807 \mathrm{~m}, \mathrm{~S} 02^{\circ} 42^{\prime} 39^{\prime \prime \prime}$, $336^{\circ} 43^{\prime} 31^{\prime \prime}$, 6.-9.viii.2012, in buffalo dung, leg. Smith, Takano \& Garner // Holotype Philonthus clanga sp. nov. Hromádka det., 2014, [red oblong printed label], BMNH\{E\}1305124, (BMNH). Paratypes: (7 spec.), same locality, date and bionomic data as holotype (BMNH, LHPC).

Description. Body length 8.5 mm , length of fore body 3.6 mm .
Colouration. Head, pronotum, scutellum and abdomen black, elytra black-brown, suture and posterior margin narrowly, but distinctly red-brown. Maxillary and labial palpi black, ventral side of antennomere one dirty yellow, dorsal side and remaining antennomeres black. Pronotum very slightly golden iridescent.

Head wider than long ( $25: 21$ ), parallel-sided, posterior angles slightly rounded, bearing one long black bristle. Four coarse punctures between eyes, medial punctures shifted anteriad, distance between medial punctures two and half times as large as distance between medial and lateral puncture. Distance between medial and lateral puncture as large as length of antennomere eight. Eyes flat, longer than temples (ratio $12: 9$ ), posterior margin with three punctures arranged in the shape of a pyramid, temporal area with many small setiferous punctures. Surface with traces of very fine microsculpture.

Antennae long, reaching posterior margin of pronotum when reclined, Antennomeres 1-3 and 11 distinctly longer than wide, antennomere 4 slightly longer than wide, antennomeres $5-10$ as long as wide. Antennomere 1 longer than antennomere 11.

Pronotum as long as wide, slightly narrowed anteriad. Anterior angles obtusely and posterior angles markedly rounded. Each dorsal row with 5 punctures, punctures 1-4 approximately equidistant, distance between punctures 4 and 5 slightly larger than distance between previous punctures. Distance between puncture 5 and posterior margin of pronotum as large as length of antennomere 1 . Each sublateral row with 2 punctures, puncture 2 shifted to lateral margin. Surface with microsculpture similar to that of head.

Scutellum large, very densely and coarsely punctate, diameter of punctures larger than eye-facets, separated by one puncture diameter or more. Surface without microsculpture; setation dark.

Elytra wider than long (ratio $46: 40$ ), sides arcuately narrowed posteriad. Punctation very fine, diameter of punctures approximately as large as that on scutellum, separated mostly by slightly more than one puncture diameter. Surface without microsculpture; setation brown.

Legs. Metatibia slightly longer than metatarsus (ratio $25: 22$ ), metatarsomere 1 longer than metatarsomere 5, almost as long as metatarsomeres 2-4 combined.

Abdomen wide, from visible tergite III narrowed anteriad and posteriad. First three visible tergites with two basal lines, elevated area between lines with several punctures. Punctation at base of all tergites 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 slightly dilated and sub-bilobed, each covered with modified pale setae ventrally. Aedeagus (Fig.1).

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

Differential diagnosis. Philonthus clanga sp. nov., is similar to P. maskinius Tottenham, 1954, but differs in having a wider head, shorter antennae, sparser punctation of abdomen and by a different shape of the aedeagus,
Distribution. Tanzania.
Etymology. The name of this species, a noun in aposition, is the Latin generic name of the African Lesser spotted Eagle Clanga pomarina (Brehm, 1831).

## Philonthus irania sp. nov.

(Figs. 2-5)

Type locality. Tanzania, Hasama Forest, Mbulu Mts. 1948 m.
Type material. Holotype ( $\mathbf{\delta}^{\prime}$ ): Tanzania Hasama Forest, Mbulu Mts. 1948 m, S0353'42",E35³8'51", 12.-14. vii.2012, Dung Pitfall, leg. Smith, Takano \& Garner, BMNH (E) 2012-92, // Holotypus Philonthus irania sp. nov., Hromádka, det., 2014, [red oblong printed label], (BMNH).

Description. Body length 10.1 mm , length of fore body 4.7 mm .
Colouration. Body, maxillary and labial palpi and antennae black, anterior first three quarters of femora dirty yellow, posterior quarter blackish, knees and tibiae black, tarsi black-brown.

Head rounded, as long as wide, posterior angles obtusely rounded. Four punctures between eyes, medial punctures slightly shifted anteriad. Separation between medial punctures five times as large as distance between medial and lateral puncture. Eyes flat, longer than temples (ratio $12: 8$ ). Posterior margin with two coarse punctures, temporal area in posterior half with several varying large punctures. Surface without microsculpture.

Antennae long, exceeding posterior margin of pronotum by the length of antennomere 11. All antennomeres longer than wide.

Pronotum wider than long (ratio $42: 38$ ). Anterior and posterior angles markedly rounded. Each dorsal row with five punctures. Punctures 2-4 equidistant, distance between punctures 1 and 2 and between punctures 4 and 5 larger than distance between previous punctures. Each sublateral row with two fine punctures, arranged in a row parallel to the dorsal row and half way between it and side. Surface without microsculpture.

Scutellum finely and sparsely punctate. Diameter of punctures as large as eye-facets, separated by three puncture diameters in transverse direction.

Elytra wider than long (ratio 56 : 51), widened posteriad. Punctation fine and dense, diameter of punctures larger than that on scutellum, separated by one and half puncture diameters or slightly more. Surface without microsculpture; setation greyish.

Legs. Metatibia shorter than metatarsus (ratio $31: 36$ ), metatarsomere 1 slightly longer than metatarsomere 5 , and slightly longer than metatarsomeres 2 and 3 combined.

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

Male. Protarsomeres 1-3 strongly dilated and sub-bilobed, each covered with modified pale setae ventrally, protarsomere 4 narrower than preceding ones. Aedeagus (Figs. 2-4), sternite IX (Fig. 5).

Female. Unknown.
Differential diagnosis. Philonthus irania sp. nov., is similar to P. morio Boheman, 1848, from which it may be differentiated by the rounded head with posterior angles without small teeth, shorter eyes, wider elytra, sparser punctation of abdomen and by a different shape of the aedeagus.

## Distribution. Tanzania.

Etymology. The name of this species, a noun in aposition, is the Latin generic name of the African White-throated Robin Irania gutturalis (Guerin-Meneville, 1842).

## Philonthus macronectes sp. nov.

(Figs. 6-9)

Type locality. Tanzania, Mount Hanang 2434 m.
Type material. Holotype ( $\mathbf{~}^{\top}$ ): Tanzania, Mount Hanang $2434 \mathrm{~m} \mathrm{~S} 04^{\circ} 24^{\prime} 41^{\prime \prime}, \mathrm{E} 35^{\circ} 24^{\prime} 10^{\prime}$ "25.-28.v.2012, Dung Pitfall, leg. Smith, R. \& Takano, H., BMNH 1262395, // Holotypus Philonthus macronectes sp. nov. Hromádka det., 2014, [red oblong printed label], (BMNH). Paratypes: (17 spec.), same label data as holotype, (BMNH, LHPC), 7 spec., Tanzania, Empakaai Crater Ngorongoro Highlands 2278 m, S0 ${ }^{\circ} 54^{\prime} 55$, E35 ${ }^{\circ} 51^{\prime} 23$, (BMNH).

Description. Body length 9.8 mm , length of fore body 3.6 mm .
Colouration. Head and abdomen black, posterior margin of all tergites narrowly brownred, pronotum and scutellum black-brown, elytra brick red, maxillary and labial palpi, dorsal side of antennomere 1 dark brown, remaining antennomeres black, ventral side of antennomere 1 brown-yellow. Femora and tarsi brown-yellow, tibiae darker.

Head as long as wide, posterior angles almost indistinct, bearing one long black bristle. Four punctures between eyes, medial punctures slightly shifted anteriad, distance between medial punctures five times as large as distance between medial and lateral puncture. Eyes flat, slightly shorter than temples (ratio $8: 9$ ), posterior margin with one puncture, temporal area with several punctures. Surface with very fine microsculpture consisting of transverse waves.

Antennae long, reaching posterior margin of pronotum when reclined. All antennomeres longer than wide.

Pronotum approximately as long as wide, distinctly narrowed anteriad. Anterior angles almost rectangular, obtusely rounded, posterior angles markedly rounded. Each dorsal row with four punctures, punctures 2-4 equidistant, distance between punctures 1-2 smaller than


Figs. 1-9. Philonthus clanga sp. nov.: 1- aedeagus, ventral view; Philonthus irania sp. nov.: 2- aedeagus, ventral view; 3- aedeagus, lateral view; 4- apex of paramere with sensory peg setae, ventral view; 5- male sternite IX, ventral view; Philonthus macronectes sp. nov.: 6- aedeagus, ventral view; 7-aedeagus, lateral view; 8- apex of paramere with sensory peg setae, ventral view; 9-male sternite IX, ventral view.
distance between previous punctures. Each sublateral row with two punctures, puncture two slightly shifted to posterior margin. Surface with microsculpture similar to that of head.

Scutellum densely and coarsely punctate, diameter of punctures distinctly larger than eye-facets, separated by one puncture diameter.

Elytra distinctly wider than long (ratio $38: 28$ ), punctation relatively fine and sparse, diameter of punctures slightly larger than that on scutellum, separated by one puncture diameter or larger. Surface without microsculpture; setation brown.

Legs. Metatibia longer than metatarsus (ratio $26: 24$ ). Metatarsomere 1 slightly longer than metatarsomere 5, as long as metatarsomeres 2-3 combined.

Abdomen wide, from visible tergite III slightly narrowed posteriad. First three visible tergites with two basal lines, elevated area between lines impunctate. Punctation at base of all visible tergites sparser than that on elytra, becoming sparser towards posterior margin of each tergite. Most punctures at base of tergites raindrop shaped. Surface without microsculpture; setation similar to that of elytra.

Male. Protarsomeres 1-3 dilated and sub-bilobed, each covered with modified pale setae ventrally, protarsomere 4 narrower than preceding ones. Aedeagus (Figs. 6-8), sternite IX (Fig. 9).

Female. Protarsomeres $1-3$ slightly dilated, scarcely sub-bilobed, each covered with modified pale setae ventrally.

Differential diagnosis. P. macronectes sp. nov., may be distinguished from the similar P. praetor Tottenham, 1949 by the longer antennae, wider pronotum and elytra, denser punctation of abdomen and by a different shape of the aedeagus.
Distribution. Tanzania.
Etymology. The name of this species, a noun in aposition, is the Latin generic name of the African Northern Giant-Petrel Macronectes halli Mathews, 1912.

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