

REDESCRIPTION OF THE AFROTROPICAL GENUS *UROTHYREUS* HORVÁTH, 1921

(HETEROPTERA: SCUTELLERIDAE)

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ABSTRACT: A monotypic Afrotropical genus *Urothyreus* Horváth, 1921 is redescribed. Illustrations of the male genital structures and color photographs of dorsal and lateral views of the adult of *Urothyreus horvathianus* (Schouteden, 1908) are presented. General remarks on the classification and distribution are given.

KEY WORDS: Heteroptera, Scutelleridae, Odontotarsinae, *Urothyreus*, taxonomy, Afrotropical Region.

Introduction:

Urothyreus horvathianus is a rarely noted Afrotropical scutellerid species described by Schouteden (1908) as *Odontotarsus horvathianus*. Horváth (1921) excluded this species from the genus *Odontotarsus* Laporte de Castelnau, 1832 and transferred it to the newly established genus *Urothyreus* characterized by different shape of head, scutellum, male genital segments and legs. After the Horváth's (1921) description no further data were published concerning this taxon, except for a short note given by Göllner-Scheiding (1990). Systematic position of *Urothyreus* Horváth, 1921 within the family Scutelleridae is not unambiguously defined. It seems to be closely related to the species of genus *Odontotarsus* (similar body proportions

and coloration pattern, reduction of the metathoracic scent gland efferent system). Morphological characters of *Urothyreus* should be described in greater details (including the specific characters of genital structures) to correctly define this taxon.

The aim of this paper is to redescribe the genus *Urothyreus* including drawings of the male genital structures and color photographs of dorsal and lateral views of the adult to facilitate its identification and to provide new data that will be useful in further taxonomic studies on the scutellerid classification.

Material and methods

The study is based on dried specimens borrowed from the following collections:

BMNH – The Natural History Museum, London, Great Britain.

MRAC – Musée Royal de l’Afrique Centrale, Tervuren, Belgium.

The following abbreviations were used in the text and figures:

Bc – buccula, Ca I – first conjunctival appendage, Ca II – second conjunctival appendage, Ca III – third conjunctival appendage, Ca – calli, Cl – clypeus, Cr – crown; Ha – humeral angles, Mxp – maxillary plate, Ph – phallotheca, Pla – posterolateral angles, V – vesica, Vr – ventral rim.

The specimens were observed and drawn using standard optical equipment (Olympus SZ61 and Olympus CX-41 light microscope). Male genital structures were dissected, soaked in 10% KOH and placed in glicerine. Photographs were taken with a Olympus Camedia 50/50 and formatted by Olympus Dp-soft.

***Urothyreus* Horváth, 1921**

Urothyreus Horváth, 1921: 146. Type species by monotypy: *Odontotarsus horvathianus* (Schouteden, 1908)

Diagnosis: Recognized by the following combination of characters: body elongate, covered with dense, pale vestiture and deep, rounded punctures (Figs. 1A-B, 3); head triangular, declivous (Figs. 1-2); lateral margin of pronotum with small spines (Figs. 1A-B, 3); scutellum

distinctly narrowed and divaricated apically (Fig. 1A-B); scent gland ostiole reduced; and male genital structures as described below and depicted on Figs. 4A-D.

Most similar to species of the genus *Odontotarsus* by the coloration pattern, body proportions, reduction of metathoracic scent efferent system can be distinguished by dense pale vestiture, more slender body, different shape of head, spines on lateral margins of pronotum, shape of apical part of scutellum, and characters of male genital structures.

Redescription:

Body: elongate, medium sized, moderately convex dorsally and ventrally, covered with dense, pale vestiture; cryptic, yellowish brown coloration, with longitudinal brown-black stripes and rounded, irregularly distributed, deep punctures (Figs. 1A-B, 3). **Head:** triangular, declivous, covered with pale vestiture; clypeus (Cl) dilated and convex medially, widely rounded apically, lateral margin of head obtuse; buccula (Bc) highly elevated (Fig. 2); antenna five-segmented, cylindrical; labium four-segmented reaching beyond posterior coxae. **Pronotum:** hexagonal in dorsal aspect (Fig. 1A, 3); convex; lateral margin with 8-9 small spines; humeral angles (Ha) furnished with spinelike process; posterolateral angle (Pla) rounded (Fig. 3). **Thoracic sterna:** covered by pale vestiture (Fig. 1B); scent gland ostiole, peritreme and evaporatorial area of metapleurite reduced. **Legs:** femora with convex, unpunctured ring in distal part; tibiae short, with longitudinal furrow dorsally. **Scutellum:** enlarged, covering most of abdomen dorsally, leaving only basal part of fore wings exposed (Fig. 1A); reaching beyond apex of abdomen; apical part distinctly narrowed, elevated, divaricated and recurved superiorly (Fig. 1B). **Pregenital abdomen:** abdominal sterna (II-VII) convex, posterolateral angles produced into small spine; stridulatory vittae absent; pale vestiture dense (Fig. 1B). **External male genitalia:** genital capsule ovoid, oriented dorsally, covered by apical part of scutellum; phallus with moderately sclerotized phallosome (Ph) and with three pairs of conjunctival appendages (Fig. 4C, D); vesica (V) moderately sclerotized, tubiform (Figs. 4C, D).

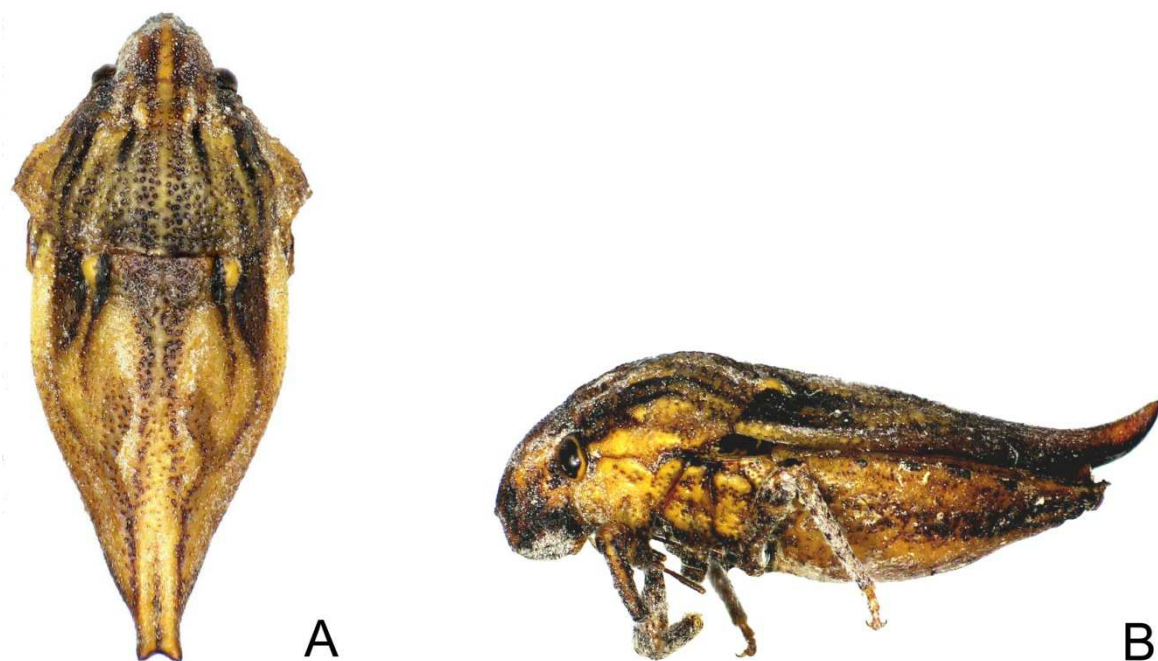


Fig. 1A-B. Habitus of *Urothyreus horvathianus* (Schouteden) [male, Kenia]: A – dorsal view; B – lateral view.

***Urothyreus horvathianus* (Schouteden, 1908)**

Odontotarsus horvathianus Schouteden, 1908: 371 (new species).

Odontotarsus druryi Distant, 1910: 77 (new species).

Urothyreus horvathianus Horváth, 1921: 146 (new combination).

Diagnosis: See diagnosis for the genus.

Redescription:

Head: yellowish brown, covered with pale vestiture; margins of clypeus (Cl) with densely distributed, brown punctures; buccula (Bc) highly elevated with blunt projection on medial part of ventral margin (Fig. 2); antenna pale brown, segment II shorter than I, segment III 1.2 times longer than II; labium reaching beyond posterior coxae, segment II distinctly elongated (about 3.5 times longer than segment III).

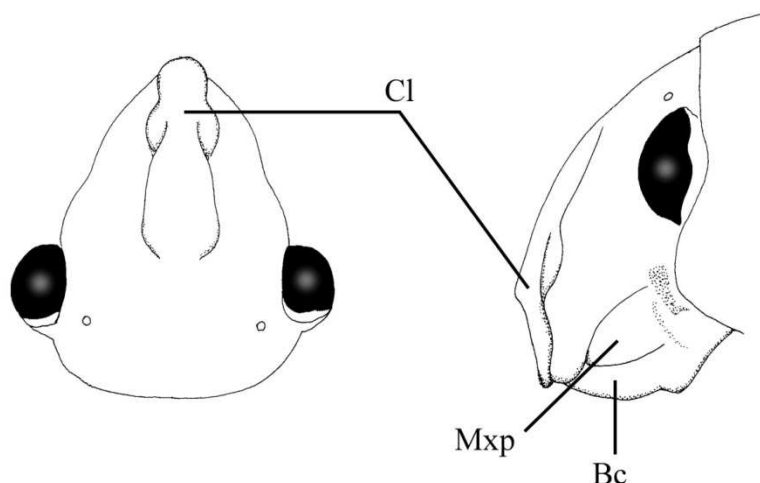


Fig. 2. Head of *U. horvathianus*. A – dorsal view, B – lateral view. Bc = buccula; Cl = clypeus; Mxp = maxillary plate.

Pronotum: about 1.7 times as wide as its length; calli (Ca) well developed, widely separated, delimited by dense, brown punctures posteriorly; posterolateral angle (Pla) rounded; posterior margin slightly elevated and arcuate (Fig 1A, 3); disc yellowish brown with deep, brown punctures and lateral black irregular stripes; medial part with yellow, unpunctured carina (Fig 1A, 3).

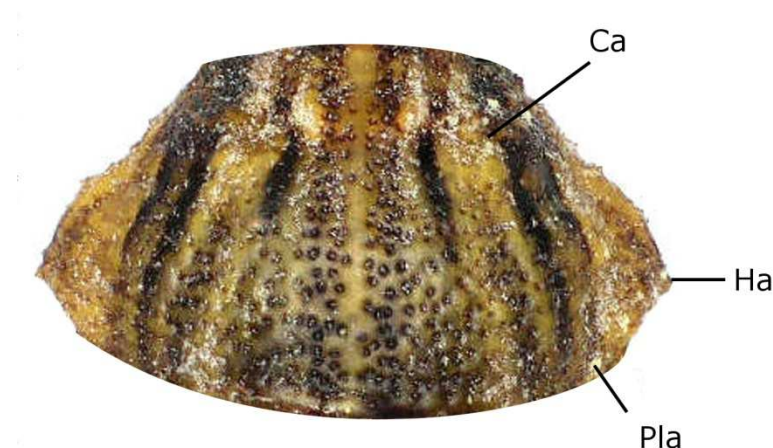


Fig. 3. Pronotum of *U. horvathianus*. Dorsal view. Ca = calli, Ha = humeral angles, Pla = posterolateral angles.

Thoracic sterna: yellowish, covered with deep, irregularly distributed, rounded punctures and pale vestiture (Fig. 1B); scent gland ostiole, peritreme and evaporatorial area of metapleurite reduced. **Legs:** yellowish with brown, dense punctures and dense, pale vestiture; femora with pale, convex, unpunctured ring in distal part; tibiae short, with longitudinal

furrow dorsally margins of this furrow furnished with small, black tubercles and thin hairs, longer than those present on remainder of tibiae. **Scutellum:** almost 1.6 times as long as its width (Fig. 1B); anterior margin slightly concave; coloration yellowish brown, with deep brown punctures and variable black brown longitudinal spots and stripes; basal part with two distinct, convex, yellow callosities, each situated mediolaterally. **Pregenital abdomen:** abdominal sterna separated by pale brown intersternal sutures; coloration variable, yellowish to pale brown, deep punctures present in lateral parts of the sterna; posterolateral angles dark, produced into small spine; pale vestiture dense (Fig. 1B). **External male genitalia:** ventral rim of genital capsule with slightly projected edge; dorsal rim shallowly concave covered with rounded punctures and numerous short setae (Fig. 4A); parameres with slender, elongated, stem and short, hook-shaped crown (Cr) (Fig. 4B); first conjunctival appendages (Ca I), short, membranous, situated dorsally, second conjunctival appendages (Ca II) moderately sclerotized, flattened, and third conjunctival appendages (Ca III) fused at the base, sclerotized in distal part, apical one third hook-shaped with spine-like extreme apex; vesica (V) moderately sclerotized, tubiform (Figs. 4C-D).

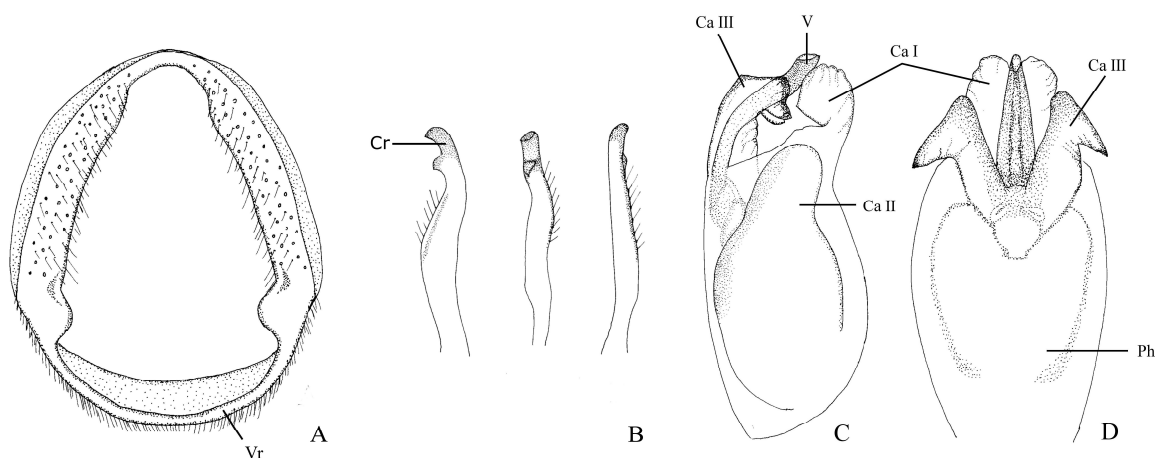


Fig. 4. Male genital structures of *U. horvathianus*. A – genital kapsule, B – parameres, C – phallus (dorsal view), D – phallus (ventral view). Ca I = first conjunctival appendage, Ca II = second conjunctival appendage, Ca III = third conjunctival appendage; Cr = crown; V = vesica; Vr = ventral rim; Ph = phallosome.

Measurements (in mm): body length 11.01–11.07; length of head 2.50– 2.55; width of head 2.45–2.50; length of pronotum 2.96–3.10; width of pronotum 4.99–5.12; length of scutellum 6.67–6.98; width of scutellum 4.34–4.68; length of antennal segment: I? 0.60–0.65, II 0.45–0.50, III 0.55–0.60, IV 0.80–0.85, V 0.90–0.95.

Distribution: Africa (Zambia, Kenia).

Type material: Holotype, male: Holotypus *horvathianus*/ Mpeta Loangwa R. affl. Of Zamb. xi. xii. 95 B. of rainy. s. Coryndon/ *Odontotarsus horvathianus* Schout. Type/ Musee Du Congo Mpeta (riv. Loangwa) XI-XII-1895 (Coryndon) Coll. Schouteden (MRAC).

Additional material examined:

Kenia: British East Africa, Makindu, 3.3000 ft, Apl. 5-7, 1911 S.A. Neave, 2 males (BMNH).

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