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Notes on some African Histerini (Coleoptera: Histeridae) with description of a new genus *Quassarus* gen. n.

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Taxonomy, new genus, new species, Coleoptera, Histeridae, Histerini, Afrotropical region

Abstract. Taxonomical and systematic status of some African Histerini was analyzed. New genus, *Quassarus* gen. n. and a new species, *Q. rubripes* sp. n. is described. The following new synonymies have been established: *Exorhabdus colonicus* Lewis, 1899 (= *Hister sulcimargo* Lewis, 1908 syn. n.); *Exorhabdus mechowi* Schmidt, 1883 (= *Exorhabdus angustimargo* Bickhardt, 1919 syn. n., = *Hister asperatus* Lewis, 1913 syn. n.); *Hister nomas* Erichson, 1834 (= *H. foveifrons* Desbordes, 1917 syn. n.); *Hister pharaonis* Schmidt, 1889 (= *H. masai* Vienna, 1987 syn. n.); *Hister viduus* Fahraeus, 1851 (= *H. ellenbergeri* Desbordes, 1917 syn. n.). Lecto- and paralectotypes for some species are designated. The species *Hister honestus* Lewis, 1908 has been transferred to the genus *Eudiplister.* New localities for some species are given.

INTRODUCTION

Since the Bickhardt's monograph (1919) the African Histerini have never been a subject of detailed studies. The tribe still contains a number of genera and species having no unique and clearly discriminating characters, so phylogenetic and systematic survey of the tribe is not satisfactory and needs reexamination.

This paper presents further efforts to explain the taxonomical and systematic position of some species classified among the Histerini.

The paper is based on the materials loaned from the following institutions: The British Museum of Natural History, London (BMNH), Muséum National d'Histoire naturelle, Paris (MNHN), Museum für Naturkunde der Humboldt-Universität zu Berlin (MNHUB), Transvaal Museum of Natural History, Pretoria (TMNH) and National Museum of Natural History - Naturalis, Leiden (LMNH). Some information was obtained from the collection of Rüdiger Peschel (CHRP) and from the author's collection (CHSM).

RESULTS

Exorhabdus colonicus (Lewis, 1899)

Hister sulcimargo Lewis, 1908: 147 **syn. n.**

Type material. Holotype (♀): Salisbury, Mashonaland [Zimbabwe], xi.1900. G.A.K.

Marshall, Hister sulcimargo Lewis, Type, George Lewis Coll., B.M. 1926-369, [BMNH].

Remarks. When describing Lewis (1908: 148) placed *Hister sulcimargo* near *H. vilis* Fahraeus in Boheman, 1851 and *H. scabripygus* Schmidt, 1889. Later Bickhardt (1919: 73) supposed it to belong to the genus *Exorhabdus* Lewis, 1910 owing to the presence of a complete subhumeral stria. Detailed examination of the type fully supported this supposition, confirming simultaneously its identity with *Exorhabdus colonicus* (Lewis). Thus, *Exorhabdus colonicus* (Lewis, 1899) = *Hister sulcimargo* Lewis, 1908, syn. n.

***Exorhabdus mechowi* (Schmidt, 1883)**

Hister mechowi Schmidt, 1883: 147.
Hister leseleuci Marseul, 1886: 151.
Hister asperatus Lewis, 1913: 356 **syn. n.**
Hister crenatipennis Bickhardt, 1910: 182.
Hister angustimargo Bickhardt, 1919: 105 **syn. n.**

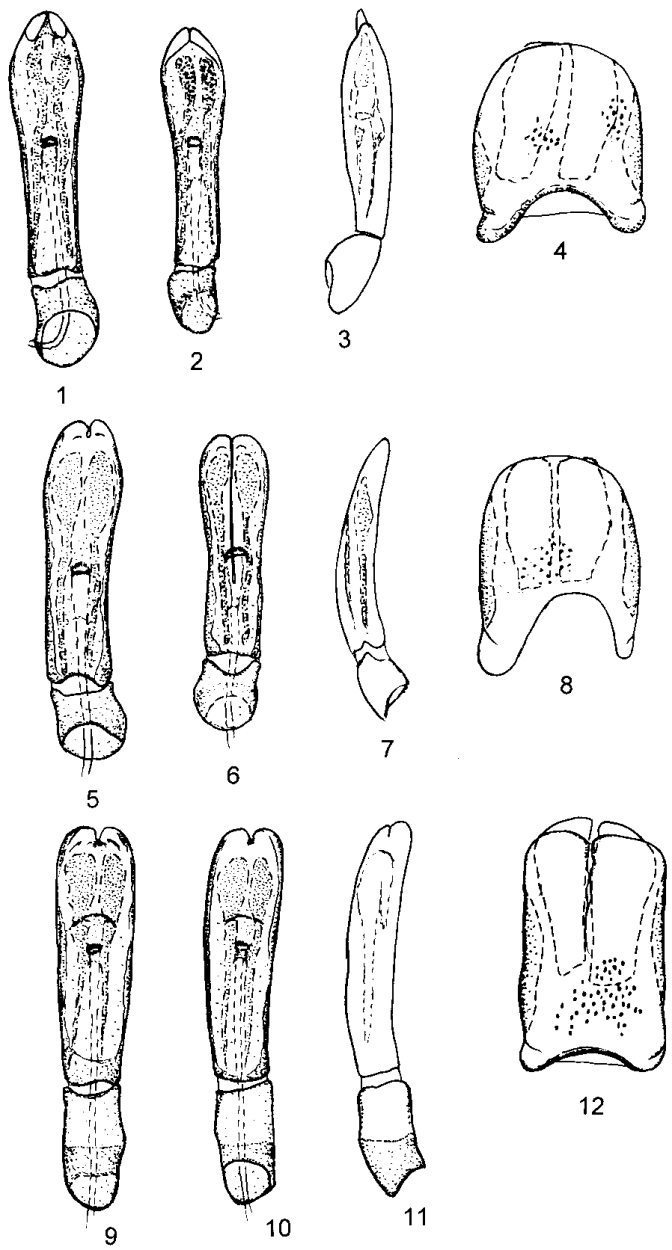
Type material. *Hister asperatus*, Holotype (♀): Musée du Congo, Katolo, 13.xi.1912, Dr. Bequaert, George Lewis Coll., B.M. 1926-369, [BMNH].

Remarks. This species exhibits a great deal of variability, including the body size as well as the pronotal and elytral sculpture (Mazur, 2006c: 112). Describing *Hister asperatus* Lewis pointed out its size, comparing it with *"Hister adjectus"*. Later Burgeon (1939: 357) noted the differences in length of the elytral striae among the specimens from northern and southern provinces of DR Congo, regarding *H. asperatus* as a subspecies of *H. mechowi.* Desbordes also noted some kind of variability of *H. asperatus,* determining some specimens of *Hister mechowi,* preserved now at the Muséum National d'Histoire naturelle, Paris [note added as a label]: *"H. asperatus* Lew. Cet exemplaires n'a pas la punctuation ruguese des côtes du corselet et du sommet des elytra qu'on remarque dans la forme typique de *H. asperatus* Lewis; mais l'espèce est assez variable". The type examination of *H. asperatus* showed that there were no substantial differences between *H. mechowi* and *H. asperatus* and thus, both these taxons should be treated as one species. *Exorhabdus angustimargo* (Bickhardt, 1919) seems also to be nothing more than an extreme form of *E. mechowi* with complete elytral striation and strongly punctured pronotal margins, especially having same structure of the aedeagus and 8th tergite (Mazur, 2005: 82, figs. 8, 9).

***Hister mirus* Bickhardt, 1919**
(Figs 1-4)

Type material. Holotype (♂): Togo, coll. Schmidt, Type, Hister mirus Bickhardt, coll. Schmidt - Bickhardt [MNHUB].

Other material studied: Ivory Coast, Parc National de la Comoe, 2 ex. [CHSM].



Figs 1-12. Genital structure of the male: 1-4: *Hister mirus*; 5-8: *H. nachtigalli*; 9-12: *H. nomas*; 1-3, 5-7, 9-11- aedeagus; 4, 8, 12- 8th tergite, dorsally; 1, 5, 10 - ventrally, 2, 6, 9 - laterally.

Remarks. Poorly known species, described and recorded so far only from Togo (Bickhardt, 1919: 97). It may be easily distinguished by the presence of the outer subhumeral stria. Additionally, the genital structure is figured (Figs 1-4).

Distribution. Togo, new to Ivory Coast.

Hister nachtigalli Bickhardt, 1919
(Figs 5-8)

Type material. Holotype (♂): Togo, Type, H. nachtigalli Bickh., coll. Schmidt - Bickhardt [MNHUB].

Other material studied: Ghana, Bodomase, 12.vii.[19]67, S. Endrödy-Younga, 1 ex; Ivory Coast: Station d'Ecologie Tropical de Lamata nr Toumodi, 20.ix - 15.xi.1982, flight intercept trap, riparian forest on Bandama river, D. Thomas, 1 ex; Parc National de la Comoe, 3 ex. [CHSM].

Remarks. When describing the species, Bickhardt (1919: 102) compared it with *H. alienigena* Bickhardt, 1912 from which it differs by the absence of sutural stria and different genital structure (Figs 5-8).

Distribution. Togo, new to Ghana and Ivory Coast

Hister nattereri Schmidt, 1889

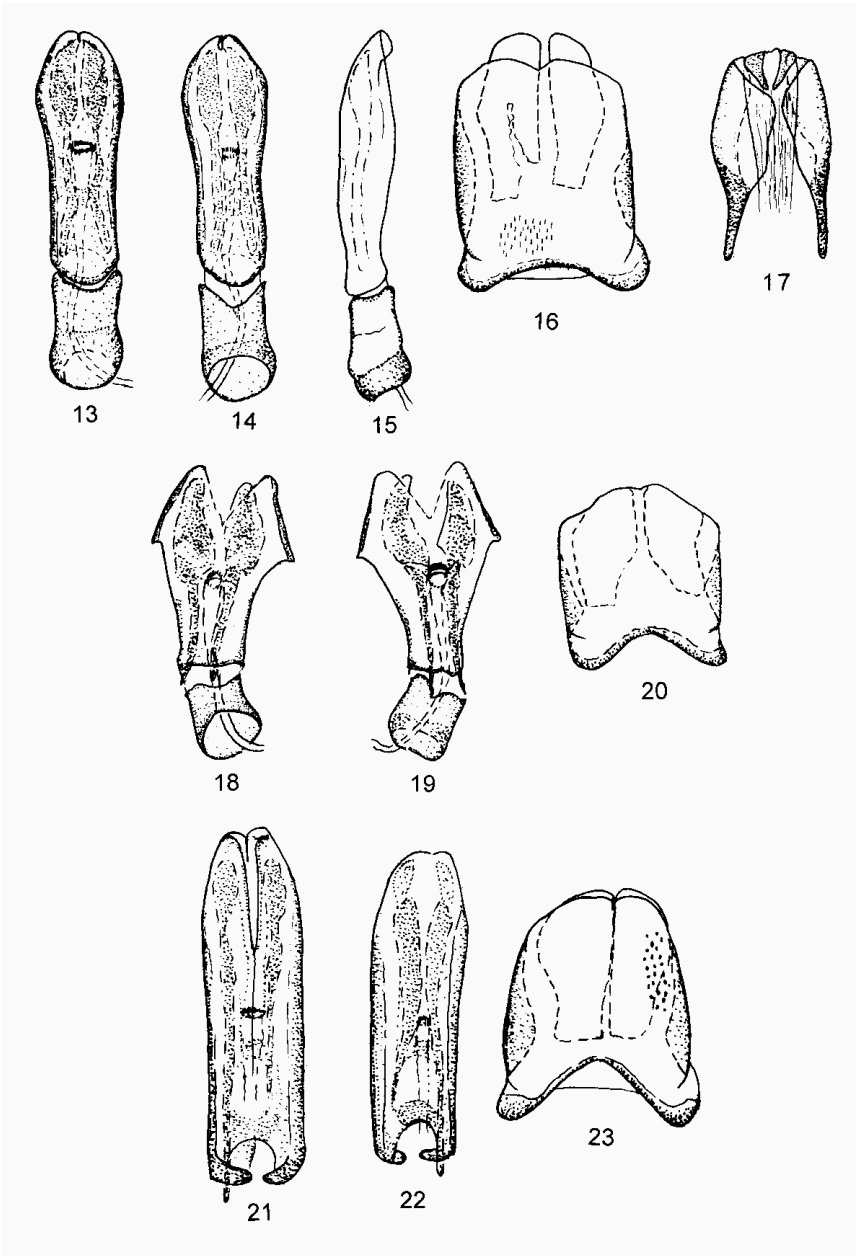
Type material. Lectotype (♀): 1) [white, printed], [RSA] Cap. 2) [red, printed] Type, 3) [white, handwritten] Hister nattereri Schmidt. typ, 4) [white, printed] coll. Schmidt, 5) [white, printed] coll. Schmidt - Bickhardt, 6) [red, printed] Syntypus, Hister nattereri Schmidt, 1889, labeled by MNHUB 2006, 7) [white, printed] Lectotypus, 8) [white, printed] Des. S. Mazur 2006 [MNHUB].

Remarks. Described based on 3 type-specimens; thus, a designation of the lectotype is given abowe.
There are also two next specimens (Syntypes) with red label "Type" but without other labels indicating their origin, so they have been not included into paralectotypes.

Hister nomas Erichson, 1834
(Figs 9-12)

Hister foveifrons Desbordes, 1917: 184 **syn. n.**

Type material. Lectotype (♂): 1) [blue, printed] Museum Paris, [Congo] Tigré, Schimper, 1850, 2) [green circle] 430/50, 3) [red, printed] Type, no. 1, 4) [white] Hister foveifrons n. sp., [handwritten] H. Desbordes desc. 1916 [printed and handwritten], 5) [white, printed]



Figs 13-23. Genital structure of the male: 13-17: *Hister parumstriatus*; 18-20: *H. pharaonis*; 21-23: *H. ritsemae*; 13-15, 18, 19, 21-22 - aedeagus; 16, 20, 23 - 8th tergite, dorsally; 17 - 9th and 10th tergites; 13, 19, 21 - dorsally, 14, 18, 22 - ventrally; 15 - laterally.

Lectotypus, 6) [white, printed] Des. S. Mazur 2007, 7) Hister nomas Er., Det. S. Mazur 2007, [MNHN]. Paralectotypes: I) ♂, 1-2 as labeled as the lectotype, 3) [red, printed] Type, no. 7, 4) [blue, printed] Museum Paris, 1933, coll. H. Desbordes, 5) [white] H. foveifrons n. sp. [handwritten], H. Desbordes desc. [printed], 6) [white, printed] Paralectotypus, 7) [white, printed] Des. S. Mazur 2007, 8) Hister nomas Er. Det. S. Mazur 2007, II) a female, as labeled as the lectotype, [Type no. 2] [MNHN].

Other material studied: Ethiopia, Arsi, Assella, 10.xii.1988, 2400 m, cow droppings, leg. S. Persson, 1 ex., [CHSM].

Remarks. When describing the species, Desbordes (1917: 184) noted only its peculiarities, separating it from other species: "On les séparera aisément en examinant le front, la ciliation et la strie latérale interne du pronotum, la 4^{e} strie dorsale des élytres, la punctuation des pygidiums et la nombre des dents des tibias antérieurs".
Detailed examination of the male genital structure (Figs 9-12) showed, however, that *H. foveifrons* was identical with *H. nomas.* The only external difference between *H. nomas* and *H. foveifrons* is the presence of only three complete dorsal striae in *H. foveifrons* instead of four ones as in typical specimens of *H. nomas,* but this character is a normal individual variation being also met among other specimens. Thus, *Hister nomas* Erichson, 1834 = *H. foveifrons* Desbordes, 1917, syn. n. and the name "nomas" has priority. *Hister foveifrons* has been described based on the type-series and thus, so a designation of the lectotype and paralectotypes is needed.

Hister parumstriatus Desbordes, 1924
(Figs 13-17)

Type material. Lectotype (♂): 1) [white, printed] Musee du Congo, Haut - Uelé: Watsa - 1922, L. Burgeon, 2) [blue, printed] Museum Paris, 1933, Coll. Desbordes, 3) [red, printed] Type, 3, 4) [white] parumstriatus n. sp. [handwritten], H. Desbordes det. 24, 5) [white, printed] Lectotypus, 6) [white, printed] Des. S. Mazur 2007 [MNHN].

Remarks. Described based on 3 type-specimens preserved now in the Desbordes' collection at the Muséum National d'Histoire naturelle, Paris and at the Musée royal de l'Afrique Centrale, Tervuren. A specimen from the Desbordes' collection has been designated as the lectotype. Additionally, to a better recognition of this species, the male genital structure is figured (Figs 13-17).

Hister pharaonis Schmidt, 1889
(Figs 18-20)

Hister masai Vienna, 1987: 225 **syn. n.**

Type material. *Hister pharaonis* Schmidt, 1889 (designation of the lecto- and paralectotype). Lectotype (♂): 1) [white, handwritten] Aegypten, Mus. Zürich, 2) [red, printed] Type, 3)

[white, printed] coll. J. Schmidt, 4) [white, printed] coll. Schmidt - Bickhardt, 5) [red, printed] Syntypus, Hister pharaonis Schmidt, 1889, labeled by MNHUB, 2006, 6) [white, printed] Lectotypus, 7) [white, printed] Des. S. Mazur, 2006, [MNHUB]. Paralectotype (♀): 1 - 5 as labeled as the lectotype, 6) [white with blue margin, handwritten] pharaonis Schmidt, 7) [white, printed] Paralectotype, 8) [white, printed] Des. S. Mazur, 2006, [MNHUB].

Type material. *Hister masai* Vienna, 1987. Holotype (♂): [Tanzania] Ngorongoro - Tang, XI.1961, P. de Moor [TMNH].

Other material studied: Ethiopia: Eritrea, Asmara, 1 ex; Asmara, Eritrea, vi, 5 ex; Harrar, Abessyn., 2 ex; Harrar, Abessin. G. Kristensen, 1 ex; Arussi Galla, A. Ganale Gudda, 3.v.[19]93, V. Bottego, 1 ex; [RSA] Natal, 1 ex; [MNHUB], Kenya, Nairob Nat. Parc wildebeest Gonnalaetus tacinus, 12.iv.[19]93, W. Hoek, 1 ♂; Uganda, entrée SE Murchison Park, ii.[19]72, leg. F. Bugnion, 1 ♀, [CHSM].

Remarks. Vienna (1987: 227) pointed out the tridentate foretibia and more distinct punctation of the pygidial segments as characters differentiating *H. masai* from *H. pharaonis* but an examination of the male genital structure (Figs 18-20) showed that both these species were identical. Thus, *Hister pharaonis* Schmidt, 1889 = *H. masai* Vienna, 1987, syn. n. and the name "*pharaonis*" has priority.

Distribution. Egypt, Sudan, Ethiopia, Kenya, Tanzania, Rwanda, new to Uganda and RSA [Natal].

Hister ritsemae Marseul, 1882

(Figs 21-23)

Type material. Holotype (♂): Lala en Büttikofer. Liberia, Afr. occ., Hister ritsemae, type, Mars. [LMNH].

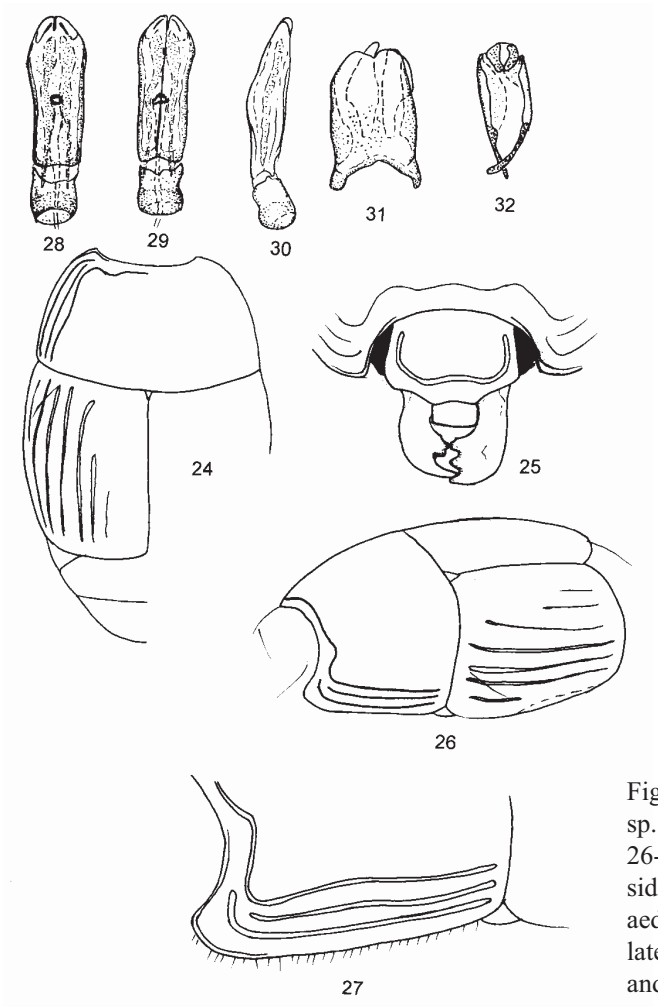
Remarks. To a better recognition of this species a male genital structure of the type is given (Figs 21-23).
It differs from *H. punctipygus* Desbordes, 1914 not only by genital structure and characters mentioned earlier (Mazur, 2005: 84-85, figs 14-15) but also by distinctly longer the 4th and 5th dorsal striae.

Hister viduus Fahraeus, 1851

Hister ellenbergeri Desbordes, 1917: 185 **syn. n.**

Type material. Holotype (♀): Museum Paris, [Botswana] Bechuanaland, Gaberones, R. Ellenberger, 1915, [MNHN].

Remarks. Regarded by the author (Mazur, 2006a: 69) as a distinct species but later examination of the type proved that *H. ellenbergeri* was only a variety of the pretty variable *H. viduus*



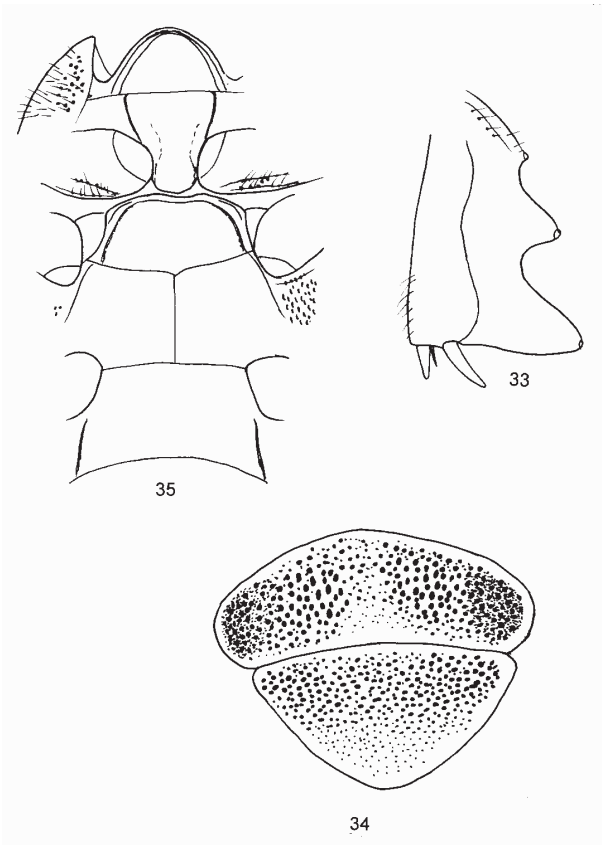
Figs 24-32. *Quassarus rubripes* sp. n.: 24- upper side; 25- head; 26- body, laterally; 27- pronotal side; 28- aedeagus ventrally, 29- aedeagus dorsally, 30- aedeagus laterally; 31- 8th tergite; 32- 9th and 10th tergites.

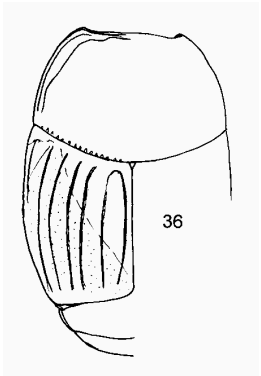
(Mazur, 2006b: 104). Thus, *Hister viduus* Fahraeus, 1851 = *H. ellenbergeri* Desbordes, 1917, syn. n.

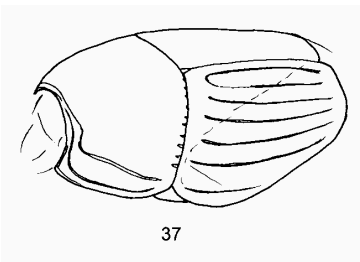
***Quassarus* gen. n.**

Type species. *Quassarus rubripes* sp. n. by monotypy, masculine gender.

Description. Body oval, moderately convex. Labrum transverse. Mandibles flat of feebly convex, not margined. Last segment of maxillary palpi elongate, rounded at apex. Frontal stria of head carinate, prolongated along eyes (Fig. 25). Marginal pronotal stria present at anterior angles only. Sides of pronotum with three complete lateral striae. Pronotal epipleura







Figs 33-37. *Quassarus rubripes* sp. n.: 33- foretibia; 34- propygidium and pygidium; 35- under side. *Eudiplister honestus:* 36- upper side; 37- body, laterally.

covered with long ciliae (Fig. 27). Elytral dorsal striae well marked. Both subhumeral striae present. Pygidial segments convex, covered with more or less dense punctation (Fig. 34). Anterior tibiae tridentate (Fig. 33). Profemural stria complete. Prosternal lobe doubly margined. Anterior margin of mesosternum feebly emarginate, mesosternal stria complete. Lateral metasternal stria abbreviated (Fig. 35). Posterior apodemes of aedeagus long, entering into basal piece (Figs 28, 29). Eight tergite longer than its width at the base (Fig. 31). Tenth tergite divided into two parts (Fig. 32).

Differential diagnosis. By tristriate pronotal sides this genus resembles the genus *Zabromorphus* Lewis, 1906, differing from it by body proportions, not enlarged last segment of maxillary palpi, not margined mandibles and shortened lateral metasternal stria. Presence of both subhumeral striae shares it with the genus *Exorhabdus* Lewis from which it differs by feebler elytral striation and feebler punctation of pygidial segments, by shortened lateral

metasternal stria and by different shape of the aedeagus (basal piece twice as long as wide) and 8th tergite (longer than its width).

Derivatio nominis. The name of a virtual person from a computer game.

Quassarus rubripes sp. n.
(Figs 24-35)

Type material. Holotype (♂): Zambia, Lukullu, 20 km Kabompo, 3.xii.2001, Werner & Lizler leg. [CHSM].
Paratype (1 ♂): Zambia, NW Prov., 30 km South of Mwinibunga, 18/19.xi.2003, K. Werner & Smrz leg. [CHRP].

Description. Body oval (Fig. 24), moderately convex, upper side black and shiny, with aeneous tinge; legs darkish-red. Length: PE 4.5 mm; total: 7.0 mm. Width: 3.8 mm.

Forehead flat, very finely punctulate. Frontal stria carinate and complete (Fig. 25). Labrum almost twice as wide as long. Mandibles flat or feebly convex, extremely finely punctulate. Antennae a little paler as body, funiculus gradually enlarging towards a club, the antennal club with two transverse sutures, sparsely tomentose and with some long setae.

Marginal pronotal stria broadly interrupted behind the head, strongly abbreviated basally (Fig. 27). Inner lateral stria complete and strongly bent behind eyes. Two outer lateral striae complete and incised. Pronotal epipleura with long, yellowish pilosity, not too densely distributed.

Epipleura of elytra concave, smooth. Both, marginal elytral and marginal epipleural stria complete and incised. External subhumeral stria incised and carinate, present on basal half. Inner subhumeral stria complete and incised. First to third dorsal striae complete and incised. Fourth dorsal stria abbreviated basally, reaching to the elytral midlength. The 5th stria strongly reduced, present on apex only or replaced here by a row of punctures. Oblique humeral stria present on basal fourth (Figs 24, 26).

Propygidium with two shallow depressions at sides, rather coarsely punctured laterally (0.5-2.0), more finely and middle and apex. Pygidium convex, more distinctly punctured at base (0.5-2.0), the punctation becoming finer towards the apex (Fig. 34).

Prosternal lobe rounded anteriorly, doubly margined, the inner stria deeply incised. Carinal striae distinct, weakly sinuous towards base, terminating inwardly to a point near inner edge of inner marginal stria of prosternal lobe.

Prosternum triangularly widened at base, very finely and sparsely punctulate. Mesosternum weakly sinuous anteriorly, covered with few minute punctures, nearly smooth. Marginal stria complete. There is also a shortened additional stria in antero-lateral angles. Meso- metasternal suture thin but distinct. Metasternum as punctulate as mesosternum. Lateral metasternal stria abbreviated apically. Lateral metasternal disc covered moderately densely with elongate punctures (1-3), each of them with yellow seta. Median line of metasternum thin.

First abdominal sternum rather long, smooth, margined laterally with a stria abbreviated basally (Fig. 35).

Protibia with 3 dents at outer margin, of which the first two are very big (Fig. 33). Apical

margin with two large spinules. Profemoral stria incised and complete. Femoral margin and some punctures on femoral disc with long, yellow setae.

Genital structure as well as the 8-10 sterna and tergites as figured (Figs 28-32).

Eudiplister honestus (Lewis, 1908) comb. n.

(Figs 36-37)

Type material. Holotype (♀): [Zimbabwe] Salisbury, Mashonaland, i.1901, G.A.K. M[arshall], Type, Hister honestus Lewis, Type, G. Lewis Coll., BM. 1926-369 [BMNH].

Remarks. Bickhardt (1919: 84) expressed a supposition that this species might have been belonged to the genus *Eudiplister* Reitter, 1909. This supposition has been fully confirmed by detailed examination of the type. *Hister honestus* fully corresponds to the generic definition of *Eudiplister* (Figs 36, 37), verified by Olexa (1982: 201): "Die Arten der Gattung *Eudiplister* unterscheiden sich von den *Atholus*-Arten durch die Vorderrand-streifen des Halsschildes (nicht immer), aber auch die kurze Schenkel-linie und durch kleinere Körperausmasse. Der kurze äussere Subhumeralstreifen in der vorderen Partie der Flügeldecken ist immer scharf eingeprägt, der innere fehlt".

Especially, the presence of outer subhumeral stria is important (Fig. 37) because this character was wrongly interpretated by Bickhardt (1919: 123) as a humeral stria: "Flügeldecken mit gebogenen Humeralstreif (wohl die schwache Humerallinie aller Histeriden?), der nicht die Basis erreicht und kaum bis zur Mitte geht."

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