

## Random studies upon Histerini (Coleoptera: Histeridae)

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Taxonomic and systematic status of some Histerini is discussed. Some new synonymies have been established: *Pactolinus sebastiani* and *P. armatus* with *P. saginatus*, *Hister belli* with *H. forcipes*, *H. luciscus* with *H. latobius* and *Atholus ruptistrius* with *A. conformis*. Lecto- and paralectotypes for some species are designated.

Key words: Histeridae, Histerini, taxonomy, new synonyms

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### INTRODUCTION

In this paper the next results upon taxonomy and systematic of some Histerini are presented. The paper is based on materials loaned from the following institutions: Museum für Naturkunde der Humboldt-Universität zu Berlin (MNHUB), Museum of Natural History, London (MNHL) and Transvaal Museum of Natural History, Pretoria (TMNH).

### ANALYTICAL PART

#### *Pactolinus saginatus* (Lewis, 1899) and its synonymies

Described (Lewis, 1899: 14) as being similar externally to *P. rubusticeps* (Marseul, 1886), differing from it by the prosternal lobe "margined only at the tip" [?]. Bickhardt (1919: 47) suspected it to be identical with *P. latipes* (Palisot de Beauvois, 1818). A detailed examination of the type showed, however, that *P. saginatus* was a distinct species, differing from all the remaining species of the genus by the presence of a

brownish pilosity on mesofemur and by the lateral metasternal stria being nearly complete (Fig. 1). Thérond (1965: 10) describing *P. armatus* compared it with *P. major* (Linnaeus, 1767) but it is identical with *P. saginatus* as resulted by the type examination.

Finally, Y. Gomy compared the paratype (male) of his *P. sebastiani* with the features of *P. armatus* finding both these species are identical (Gomy, in litt.).

A list of synonymies of *Pactolinus saginatus* is, therefore, as follows:

*Pactolinus saginatus* (Lewis, 1899)

*Pactolinus armatus* (Thérond, 1965) – syn. nov.

*Pactolinus sebastiani* Gomy, 2001 – syn. nov. (Gomy in litt.)

A shape of the edeagus of *P. saginatus* has been figured by Gomy (2001: 411, f. 4).

Material examined:

*Pactolinus saginatus* (Lewis, 1899)

Type: a female, [Mozambique]: Mouth of Zambesi, Tschinde, Fruhstorfer, *Hister saginatus*

Lewis, Type. G. Lewis Coll. B.M. 1926-369 [MNHL].

*Pactolinus armatus* (Thérond, 1965)  
Holotype: a female, [RSA]: Blouberg, Tvl. 6000-6714 ft., 10.I.1955, Transv. Mus. Exp., *Macrolister armatus n. sp.*, J. Thérond det. 1962, Holotype, *Macrolister armatus sp. n.* J. Thérond [TMNH].  
Paratype: a female, [RSA]: Blouberg, Tvl. 6000-6714 ft., 10.I.1955, Transv. Mus. Exp., Paratypus, *Macrolister armatus sp. n.* J. Thérond 1965 [TMNH].

Other materials: Zimbabwe, Lower Gwelo, XII/1981, 1 B&, leg. C.R. Owen; Solusi, XII/1990, 1 male, leg. C.R. Owen; Bubi, Bubi river, 8.12-9.12.1998, 1 ex., leg. A. Kudrna jr. [CHSM]. New to Zimbabwe.

#### ***Hister belli* Lewis, 1904 and *H. furcipes* Marseul, 1854**

Lewis (1904: 146) in the description of *H. belli* wrote: “the elytra, the inner humeral stria is dimidiate, shortened before and behind...”. Desbordes (1919: 384-385) wrongly interpreted it as “strie subhumérale interne” in his key. In fact, the stria mentioned is the outer subhumeral one and *H. belli* is identical with *H. furcipes* as showed the type examination.

Thus, *Hister furcipes* Marseul, 1854 = *H. belli* Lewis, 1904, syn. nov.

Material examined:

Type: a female, T.R. Bell, [Pakistan]: Karachi, Type, *Hister belli* Lewis, Type. George Lewis, Coll. B.M. 1926-369, *Hister belli* Lew. = *H. furcipes* Mars. Det. S. Mazur 2009 [MNHL].

#### ***Hister cooperi* G. Müller, 1944**

A poorly known species, known only from the type-locality as yet. Some morphological details have been presented later by G. Müller (1946: 541, f. 14) Additionally, the male genital structure is figured here (Figs. 2-5).

Material examined:

Type: a male, [Ethiopia] Abyssinia: Wouramboulchi, near Djem-Djem, circa 9000 ft., 30.ix-1.x.1926, J. Omer Cooper, *Hister cooperi n. sp.*, det. J. Müller, 1940, Typus, Brit. Mus. 1928-51, Box 142 [MNHL].

#### ***Hister gehini* Marseul, 1854**

A widely distributed in Africa and fairly variable species. Especially, small specimens with the strongly reduced outer subhumeral stria may be easily confused with those of *H. fossor* Erichson, 1834. To make easier a separation of both these species, the male genital structure is figured (Figs. 6-9). For that of *H. fossor* see Mazur, 2007: 151, figs. 8-12.

Material examined:

Paratype: a male, Syntypus: 48816, Paratypus, *H. Gehini* Mars.\*, Seneg.[al], Mars.[eul], [MNHUB]. Additionally, the type-series (5 specimens) of *Hister plebejus* Klug, 1855, synonymous with *H. gehini*, was also studied.

Lecto- and paralectotypes are designated below.

Lectotype: a female, 1) [blue, handwritten] [Mozambique]: Siuna, Peters, 2) [white, printed] 48818, 3) [blue, printed] Hist.-Coll. (Coleoptera) Nr. 48818, *Hister impressus* Apetz, Siuna – Tette, Peters, Zool. Mus. Berlin, 4) [red, printed] Syntypus, *Hister plebejus* Klug, 1855, labeled by MNHUB 2007, 5) [white, printed] Lectotypus, 6) [white, printed] Des. S. Mazur, 2007, 7) [white, printed] *Hister plebejus* Klug, 1855 = *H. gehini* Marseul, 1854, Det. S. Mazur, 2007 [MNHUB].

Paralectotypes: I, female, 1) [blue, handwritten] [Mozambique]: Tette, Peters, 2) [blue, printed] Hist.-Coll. (Coleoptera), Nr. 48818, *Hister impressus* Apetz, Siuna – Tette, Peters, Zool. Mus. Berlin, 3) [red, printed] Syntypus, *Hister plebejus* Klug, 1855, labeled by MNHUB 2007, 4) [white, printed] Paralectotypus, 5) [white, printed] Des. S. Mazur, 2007, 6) [white, printed] *Hister plebejus* Klug, 1855 = *H. gehini* Marseul, 1854, Det. S. Mazur, 2007; II, male, [blue, printed] Hist.-Coll. (Coleoptera), Nr. 48818, *Hister impressus* Apetz, Siuna – Tette, Peters, Zool. Mus. Berlin, 2) [red, printed] Syntypus, *Hister*

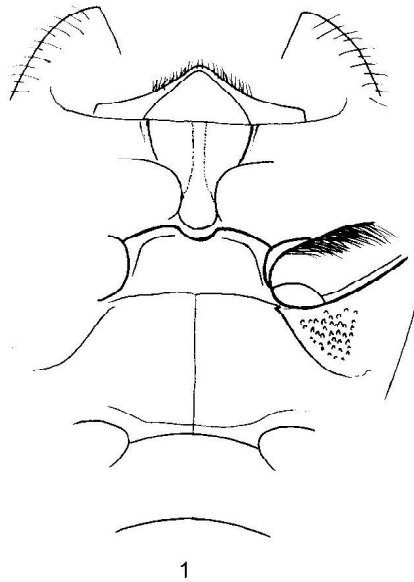


Fig. 1. *Pactolinus saginatus*, body under side.

plebejus Klug, 1855, labeled by MNHUB 2007, 3) [white, printed] Paralectotypus, 4) [white, printed] Des. S. Mazur, 2007, 5) [white, printed] *Hister plebejus* Klug, 1855 = *H. gehini* Marseul, 1854, Det. S. Mazur, 2007, III and IV, sex undetermined, as labeled as the paralectotypes II [MNHUB].

#### ***Hister kalaharii* Thérond, 1965**

By a presence of the outer subhumeral stria this species shares the species of the genus *Margarinotus* Marseul, 1854: "... de cet insecte rappelle assez celles de *Hister distinctus* Er." (Thérond, 1965: 12), but median lobe of the edeagus without a median armature (Figs. 15, 16), whereas the presence of the median armature is a feature typical for the genus *Margarinotus*. (8<sup>th</sup>– 10<sup>th</sup> tergites are also figured, Figs. 18-20).

On the other hand, the strongly bidentate protibiae (Fig. 13), the fimbriation of the body margin (Fig. 11, 12, 14) and the robust body resemble the genus *Spilodiscus* Lewis, 1906 but *H. kalaharii* differs from the species of

*Spilodiscus* by strongly margined mandibles (Fig. 10), presence of outer subhumeral stria and different shape of the edeagus. (For that of *Spilodiscus* see Caterino, 1998: 1145, fig. 3).

Probably a body fimbriation and bidentate protibiae are a kind of adaptation to psammophily which appears to have occurred among unrelated groups of Histerini.

Anyway, thorough phylogenetic and morphological studies of the Histerini as a whole are needed to resolve a systematic position of this species.

Material examined:

Paratype: a male, [RSA]: Twee Rivieren, V 1956, Kalahari Gemsbok Park Expedition, Paratypus, *Hister kalaharii* sp. n., J. Thérond [TMNH].

#### ***Hister luciscus* Lewis, 1885 and *H. latobius* Marseul, 1854**

Described from Myanmar (Birmah) as allied to *H. baconi* Marseul, 1854 (Lewis, 1885: 464): "I compared this with the type of *Baconi* in Marseul's collection when last in Paris". Since the time of description *H. luciscus* was found never again.

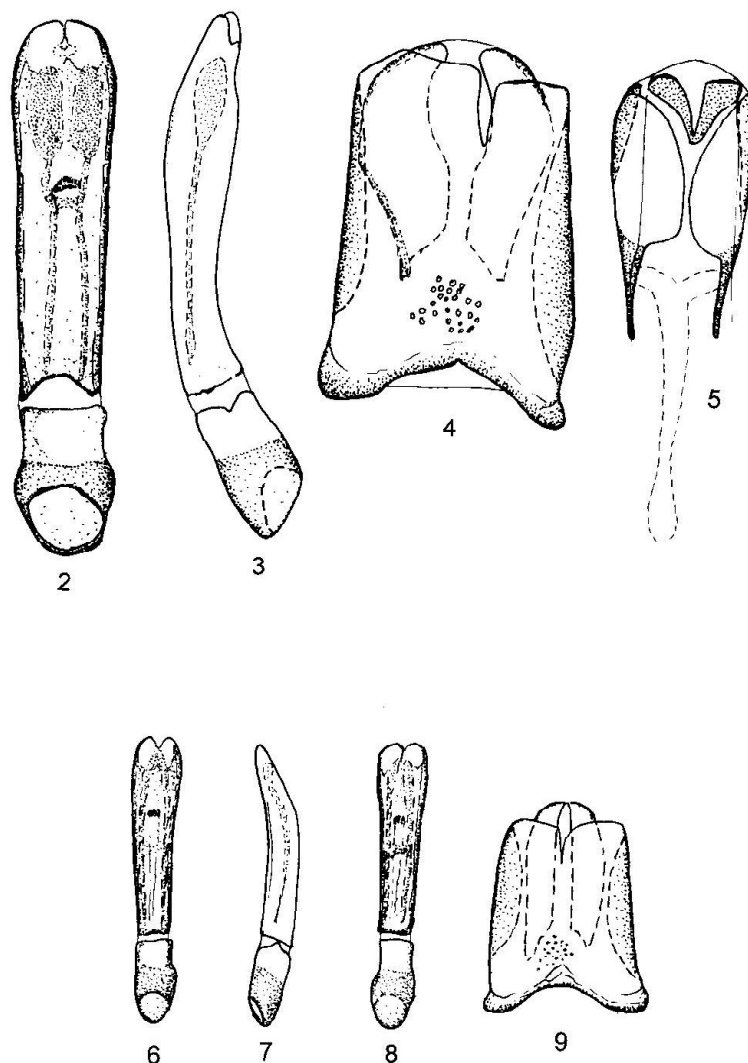
A type examination showed that it was identical in both, externally and genital structure, with *H. latobius* from South Africa, a pretty variable species (Mazur, 2007: 152, figs. 13-17).

Most likely, the specimen on which Lewis based his description has been wrongly labeled as originating from Myanmar.

Thus, *Hister latobius* Marseul, 1854 = *H. luciscus* Lewis, 1885, syn. nov. and the name "latobius" has a priority.

Material examined:

Type: a male, [Myanmar]: Birmania, Type, *Hister luciscus* Lewis, Type, near to *Baconi* & *assamensis*, teste Marseul. 30.I.[18]84. thoracic marginal stria & mandibles differ, G. Lewis Coll.



Figs. 2-9. Genital structure of the male. 2-5. *Hister cooperi*, 6-9. *H. gehini*. 2-3, 6-8 – edeagus, 2, 6 – ventrally, 3, 7 – laterally, 8 – dorsally, 4, 9 – 8<sup>th</sup> segment, 5 – 9<sup>th</sup> and 10<sup>th</sup> tergites.

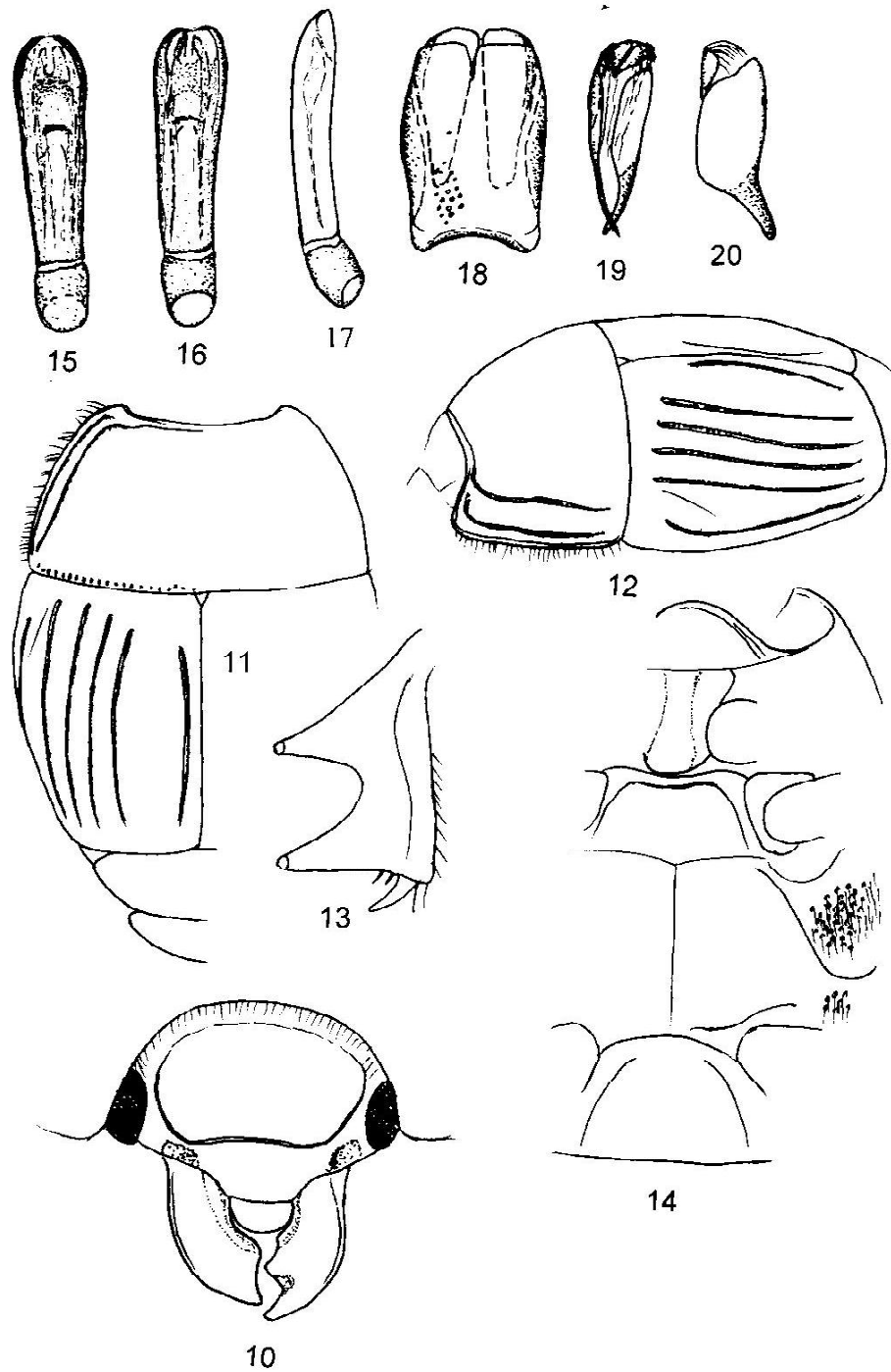
B.M. 1926-369, *Hister luciscus* Lew. = *H. latobius* Mars. Det. S. Mazur 2009 [MNHL].

***Omotropis terrenus* (Lewis, 1913)**

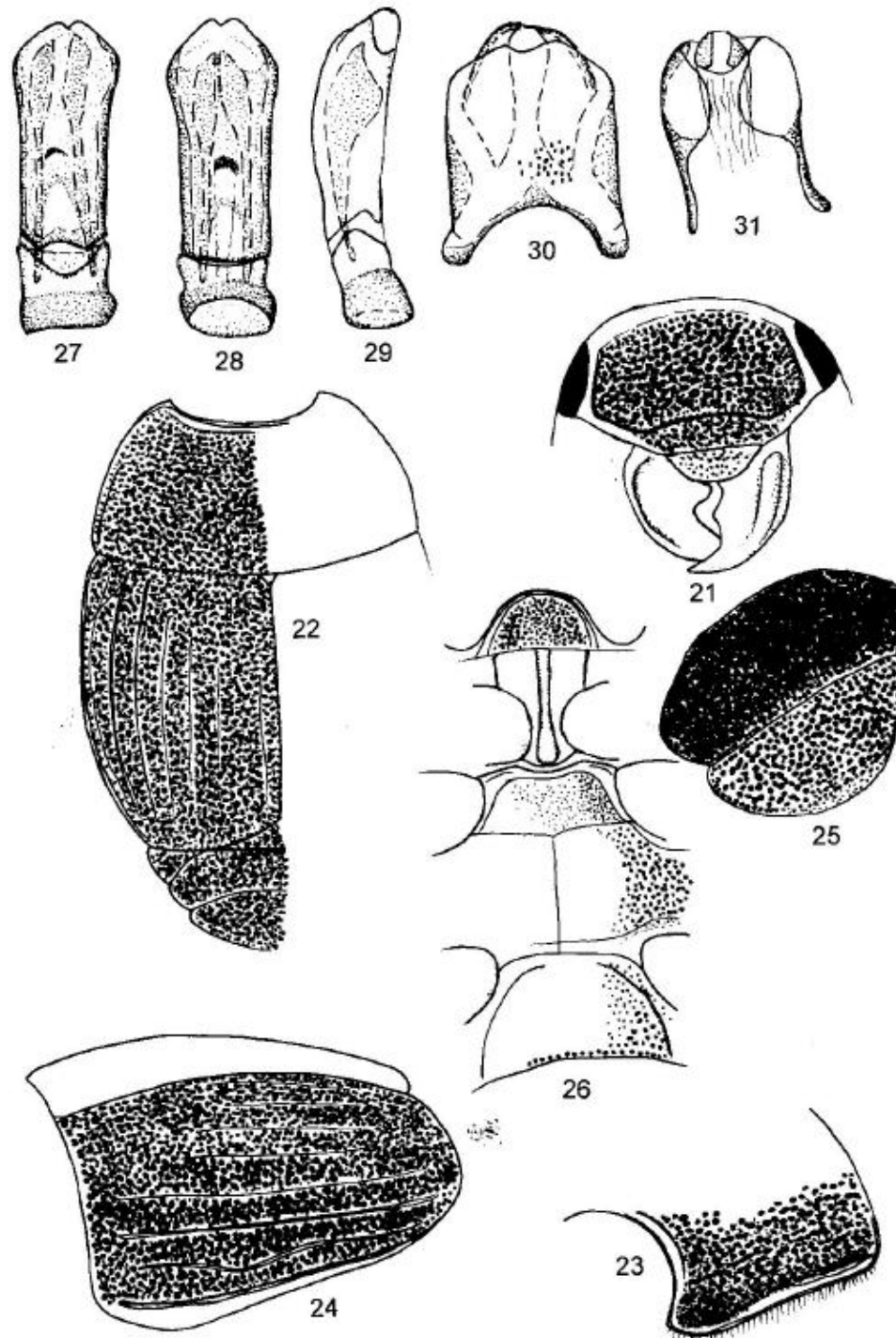
Placing it originally in the genus *Hister* L., Lewis (1913b: 357) noted its peculiarity as follows: “The dorsal striae of this species somewhat resemble those of *H. semigranosus*, Mars., but there is no known species similar to it”.

Reichardt (1933: 84) creating a new genus *Omotropis* (with *H. terrenus* as the type) showed some affinities to *Teinotarsus* Marseul, 18 (pronotum carinate at sides, prosternum bistrate) and *Psiloscelis* (carinate elytra and sulcate pronotum laterally).

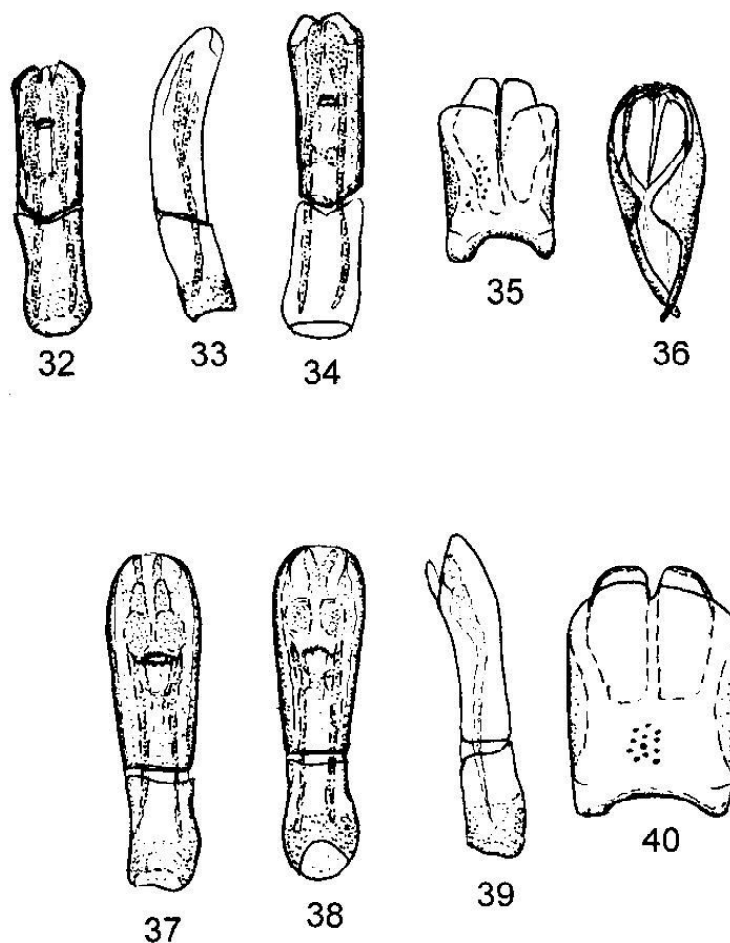
To a better recognition of this curious and very rare species some morphological details and as



Figs. 10-20. *Hister kalaharii*. 10 – head, 11 – body, dorsal view, 12 – body, lateral view, 13 – protibiae, 14 – body, under side. 15-20, genital structure of the male. 15-17 – edeagus, 18 – 8<sup>th</sup> segment, 19-20 – 9<sup>th</sup> and 10<sup>th</sup> tergites, 15 – dorsally, 16 – ventrally, 17, 20 – laterally.



Figs. 21-31. *Omotropis terrenus*. 21 – head, 22 – body, upper side, 23 – pronotum, 24 – elytron, 25 – pro- and pygidium, 26 – body, under side, 27-31. genital structure of the male. 27-29 – edeagus, 30 – 8<sup>th</sup> segment, 31 – 9<sup>th</sup> and 10<sup>th</sup> tergites, 23, 24, 29 0 laterally, 27 – dorsally, 28 – ventrally.



Figs. 32–40. Genital structure of the male. 32-36. *Atholus rubricatus*, 37-40. *A. conformis*. 32-34, 37-39 – edeagus, 35, 40 – 8<sup>th</sup> segment, 36 – 9<sup>th</sup> and 10<sup>th</sup> tergites, 32, 37 – dorsally, 33, 39 – laterally, 34, 38 – ventrally.

well as a male genital structure are figured (Figs. 21-31).

Material examined:

Type: a male, [Malawi]: Mlanje, Nyasaland, 11.12.1912, S.A. Neave, Type, *Hister terrenus* Lewis, Type, 1919-140 [MNHL].

***Atholus rubricatus* (Lewis, 1897)**

A pretty variable species, occurring in two colored forms: with red maculae on elytra

(nominative form, “chariensis”) and completely black one (“luctuosus”) (Mazur, 2008: 46).

Additionally, the figures of the male genital structure are given (Figs. 32-36).

Material examined:

Type: a male, Cameroon, Kraat”, 97, *Hister rubricatus* Lewis, Type, G. Lewis Coll. B.M. 1926-369, *Atholus rubricatus*, Det. S. Mazur 2009 [MNHL].

***Atholus ruptistrius* Lewis, 1913 and *A. conformis* (Erichson, 1834)**

Lewis (1913: 82) emphasized the “inner lateral [pronotal] stria markedly broken behind the eyes” as distinguishing it from the rest species of the genus. This stria, however, is variable being more or less distinctly interrupted, so it is sometimes difficult to separate *A. ruptistrius* from *A. conformis*.

A type examination of both these species enabled to ascertain their identity, especially the genital structure (Figs. 37-40).

So, *Atholus conformis* (Erichson, 1834) = *A. ruptistrius* Lewis, 1913, syn. nov.

*A. conformis* has been described on a base of type-series, thus, a designation of the lecto- and paralectotypes are given below.

Lectotype: a male, 1) [green, handwritten] [RSA]: Pr. b. sp., Krebs, 2) [white, printed] 48945, 3) [red, printed] Type, 4) [green, handwritten] confinis Er. 5) [blue, printed] Hist.-Coll. (Coleoptera) Nr 48945, Hister confinis Er. Promont. b. sp., Krebs, Zool. Mus. Berlin, 6) [red, printed] Syntypus, Hister conformis Erichson, 1834, labeled by MNHUB 2008, 7) [white, printed] Lectotypus, 8) [white, printed] *Atholus conformis* (Erichson, 1834) Det. S. Mazur 2009, 9) [white, printed] Des. S. Mazur 2009, [label attached]: The name confinis on the hist. label was obviously confused with conformis described from Cap. [MNHUB].

Paralectotypes: I, sex undetermined, 1) [red, printed] Type, 2) [blue, printed] Hist.-Coll. (Coleoptera) Nr 48945, Hister confinis Er., Promont. b. sp., Krebs, Zool. Mus. Berlin, 3) [red, printed] Syntypus, Hister conformis Erichson, 1834 labeled by MNHUB 2008, 4) [white, printed] Paralectotypus, 5) [white, printed] *Atholus conformis* (Erichson, 1834) Det. S. Mazur 2009, II – III: as labeled as the paralectotype I [MNHUB].

*Atholus ruptistrius*: type, a male, Lake Nyassa, Type, *Atholus ruptistrius* Lewis, Type, G. Lewis

Col. B.M. 1926-369, *Atholus ruptistrius* Lew. = *A. conformis* Er. Det. S. Mazur 2009 [MNHL].

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