

Lectotype designations, new synonymies and distribution records of the Neotropical *Eupariini* (Coleoptera: Scarabaeoidea: Aphodiinae)

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Abstract. Lectotypes of *Ataenius crenator* HAROLD, 1876, *A. purator* HAROLD, 1868 and *A. transversarius* SCHMIDT, 1909 are designated and discussed. Six species of *Ataenius* HAROLD are recognized synonyms: *A. auropunctatus* PETROVITZ, 1973 (= *petrovitzi* BALTHASAR, 1960), *A. drifti* ENDRÖDI, 1963 (= *opacipennis* SCHMIDT, 1910), *A. gothi* BALTHASAR, 1933 and *A. splendens* ENDRÖDI, 1963 (= *purator* HAROLD, 1868), *A. granulipennis* PETROVITZ, 1973 (= *carinatipennis* PETROVITZ, 1973) and *A. lorettii* MARTINEZ, 1952 (= *complicatus* HAROLD, 1869). *Ataenius transversarius* SCHMIDT, 1909 is transferred to *Phalangochaeta* MARTINEZ, *Dialytes impressus* PETROVITZ, 1963 to *Ataenius* HAROLD and *Saprosites convexus* HAROLD, 1880 to *Aphotaenius* CARTWRIGHT with *A. colombiensis* CARTWRIGHT, 1952 a new junior synonym.

Key words: Coleoptera, Scarabaeoidea, Eupariini, taxonomy, Neotropical Region.

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The tribe *Eupariini* sensu lato is an extremely diverse component of the Neotropical biota, with numerous genera and with groups of vicarious species being closely related to those of the United States. Many taxa are centered in Mexico and Middle America, whereas others are widely distributed from Mexico to Argentina. The species were commonly misidentified by taxonomists, due to their pronounced variability and a poorly known distribution. This confusion was reduced in part by CHALUMEAU (1992) who drew attention to the synonymies of several species. During ongoing studies on the Neotropical genus *Ataenius* and its allies (STEBNICKA 1997; 1999 in press), I have found further nomenclatural shortcomings that require clarification. Two new combinations, several instances of new synonymy and data on distribution are presented here. In addition, this paper designates lectotypes for three species, where all available informations show that each awaits a formal designation in accordance with Art. 74 of the International Code of Zoological Nomenclature.

The following acronyms indicate depositories for the type-material and other specimens examined:

BMNH – British Museum of Natural History, London; **CMN** – Canadian Museum of Nature, Ottawa; **FSCA** – Florida State Collection of Arthropods, Gainesville; **FVMC** – Fernando Vaz de Mello Collection, Viçosa; **HNHM** – Hungarian Natural History Museum, Budapest; **IRSNB** – Institut Royale des Sciences Naturelles, Bruxelles; **ISEA** – Institute of Systematics and Evolution of Animals, Polish Academy of Sciences, Krakow; **MACN** – Museo argentino de Ciencias naturales, Buenos Aires; **MHNG** – Museum d'histoire naturelle, Genève; **MNHN** – Museum National d'histoire naturelle, Paris; **MZSP** – Museu de Zoologia, Universidade Sao Paulo; **NMNH** – National Museum of Natural History, Washington; **NMP** – National Museum, Prague; **NRS** – Naturhistoriska Riksmuseet, Stockholm; **RVNH** – Rijksmuseum van Natuurlijke Histoire, Leiden; **SMNS** – Staatliches Museum f. Naturkunde, Stuttgart; **TM** – Transvaal Museum, Pretoria; **ZMHB** – Zoologisches Museum, Museum f. Naturkunde der Humboldt-Universität, Berlin; **ZSM** – Zoologische Staatssammlung, Munich.

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Phalangochaeta transversaria (SCHMIDT), comb. nov.

(Figs 1, 3)

Ataenius transversarius SCHMIDT, 1909, Soc. ent. 24: 43-44. – DELLACASA, 1988, Mem. Soc. ent. ital. (catalogue) 66: 282.

M a t e r i a l e x a m i n e d. Lectotype here designated, labelled "Typus", "Songo Bolivia", "*Ataenius transversarius* m.", "*Phalangochaeta transversaria* det. F. CHALUMEAU '80 lectotype" [in litteris!], in NRS.

Specimens (3). **Brazil** – Sao Paulo state (SP), Agudos; Rondonia state (Ro), SW Ariquemes (ISEA).

D e s c r i p t i o n. Length 4.0-5.0 mm. Body as in Fig. 3; colour dark brown to black. Head large, pronotum transverse. Mesocoxae widely separated, mesometasternum as in Fig. 1. Tarsal segments setaceous; basal segment of metatarsus equal in length or longer than following tarsal segments combined.

Male. Head and disc of pronotum with larger and closer punctures than in female, pronotum wider with base on each side distinctly emarginate, mesosternal callosity larger.

Female. Metasternum and abdomen with larger and deeper punctures than in male, punctures of elytra closer and deeper especially on apical declivity.

R e m a r k s. The species will be discussed and keyed in a separate contribution dealing with the genus *Phalangochaeta* MARTINEZ.

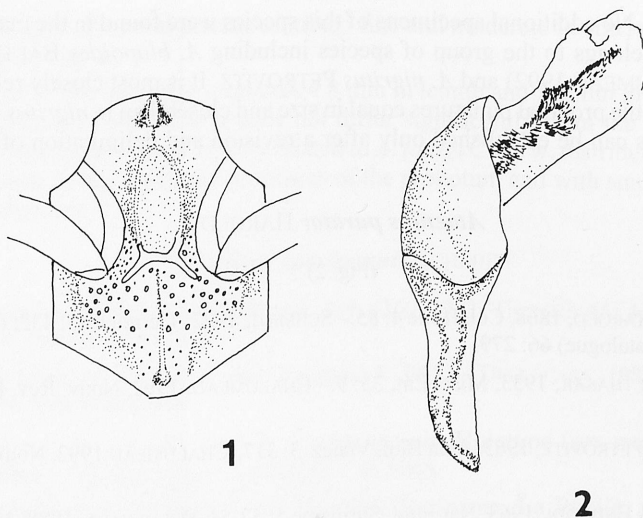
Ataenius stercorator (FABRICIUS)

Scarabaeus stercorator FABRICIUS, 1775, Syst. Ent.: 20. – OLIVER, 1789, Ent. Col. 1: 89, t.17, fig. 155.

Ataenius stercorator: HAROLD, 1875, Col. Hefte 13: 70 (non FABRICIUS, 1775); BATES, 1887, Biol. Centr. Amer. 2: 96 (redescription of type!); HORN, 1887, Trans. am. ent. Soc. 14: 83 (nec FABRICIUS, 1775); SCHMIDT, 1922, Tierreich 45: 422 (misidentification of *A. columbicus* HAROLD); LANDIN, 1956, Opusc. Ent. 21: 219-220 (redescription of type); CHALUMEAU, 1980, Nouv. Rev. Ent. 10: 90-91 (misinterpretation); DELLACASA, 1988, Mem. Soc. ent. ital. (catalogue) 66: 202; BARAUD, 1994, Bull. mens. Soc. Linn. 63: 58 (specific characters of *A. strigicauda* BATES with synonymies misinterpreted!).

Ataenius opacus HAROLD, 1867, Col. Hefte 2: 100. – 1876, An. Soc. ent. Belg. 19: 97; SCHMIDT, 1922, Tierreich 45: 444; DELLACASA, 1988, Mem. Soc. ent. ital. 66: 278 (catalogue). **New synonymy.**

M a t e r i a l e x a m i n e d. *A. stercorator*: described from Brazil, Rio de Janeiro. Lectotype designated by LANDIN 1956, Opusc. Ent. 21: 219-220, in BMNH (BANKS Coll.).



Figs 1-2. 1 – *Phalangochaeta transversaria* (SCHMIDT): mesometasternum; 2 – *Ataenius purator* HAROLD: male genitalia in lateral view.

A. opacus: described from Brazil. Lectotype designated by CARTWRIGHT 1973, *Coleopterist Bull.* 27: 42, in MNHN.

Specimens (80). **Argentina, Bolivia, Brazil, Paraguay, Uruguay** (in all collections studied).

R e m a r k s. A misinterpretation of the *Ataenius stercorator* status presented above has been initiated by HAROLD (1875) and followed by several authors up to this time. BATES (1887) in his redescription of *stercorator* states that “the species is of a dull sooty-black colour” and “a remarkable distinguishing character of the species is a series of tubercles or denticulations at regular intervals on the inner side of the four hind tibiae”. Such characters are quite similar to those of *A. opacus* HAROLD. The lectotypes and other specimens of misidentified species *A. strigicauda* BATES and *A. columbicus* HAROLD have scarcely short setae on the metatibia with no trace of tubercles and are more or less shining black. It can be assumed that HAROLD saw a specimen of “*strigicauda*” described later by BATES and identified it as “*stercorator*”.

Ataenius crenator HAROLD

(Fig. 4)

Ataenius crenator HAROLD, 1876, *Ann. Soc. ent. Belg.* 19: 97.– SCHMIDT, 1922, *Tierreich* 45: 456 (ex HAROLD); DELLACASA, 1988, *mem. Soc. ent. ital. (catalogue)* 66: 116.

M a t e r i a l e x a m i n e d. Lectotype here designated, labelled “Bresil, S. Joao d’el Rey, coll. R.I.S.C.N.B. ex coll. C. Van Volxen”, “det. HAROLD 1876 *Ataenius crenator* n.sp.”, “*Ataenius crenator* Har. det. F. CHALUMEAU ‘81 lectotype” [in litteris!], in IRSNB.

D e s c r i p t i o n of lectotype. Length 5.5 mm, greatest width 2.9 mm. Body (Fig. 4) oval, slightly alutaceous, black. Elytra relatively short, arcuate toward apex, humeral denticles conical; striae deep with close punctures crenating inner margins of intervals; intervals convex, microreticulate and very finely punctate. Ventral surface alutaceous, punctate; mesocoxae approximate; meso- and metatibiae slender with small accessory spine; tarsi slender, basal segment of metatarsus 1/3 longer than upper tibial spur and subequal in length to following tarsal segments combined.

R e m a r k s. No additional specimens of this species were found in the material examined. *Ataenius crenator* belongs to the group of species including *A. blapoides* BALTHASAR, *A. talpa* BALTHASAR (CHALUMEAU 1992) and *A. nigrinus* PETROVITZ. It is most closely related to *nigrinus*, but differs in having the pronotal punctures equal in size and closer than in *nigrinus*. The affinities of this group of species can be established only after a revision and delimitation of the Neotropical *Ataenius*.

Ataenius purator HAROLD

(Fig. 2)

Ataenius purator HAROLD, 1868, Col. Hefte 4: 85.—SCHMIDT, 1922, Tierreich 45: 432; DELLACASA, 1988, Mem. Soc. ent. ital. (catalogue) 66: 279.

Ataenius gothi BALTHASAR, 1933, Misc. Ent. 35: 9.—CHALUMEAU, 1992, Nouv. Rev. Ent. 9: 204, fig. 6. **New synonymy.**

Ataenius gagates PETROVITZ, 1963, Acta Biol. Venez. 3: 317.—CHALUMEAU 1992, Nouv. Rev. Ent. 9: 204 (as synonym of *gothi*).

Ataenius splendens ENDRÖDI, 1963, Nat. stud. Suriname 5: 52-54. DELLACASA, 1988: Mem. Soc. ent. ital. (catalogue) 66: 281. **New synonymy.**

M a t e r i a l e x a m i n e d. *A. purator*: Lectotype here designated, with hand-written labels: green label "Pará", white label "*Ataenius purator* m. Para", in ZMHB.

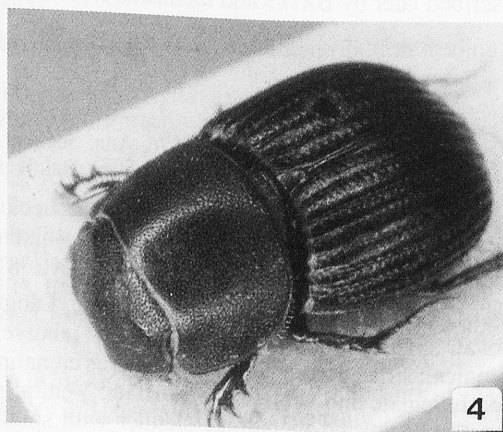
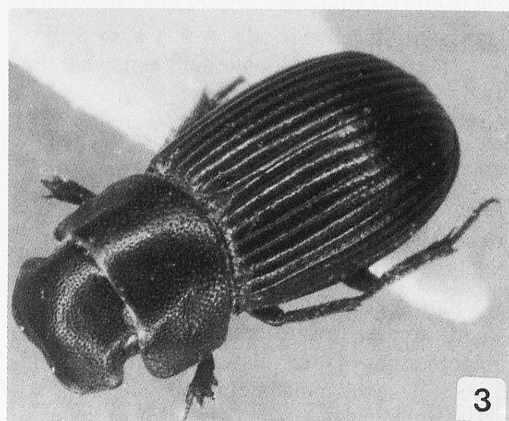
A. gothi: described from Venezuela. Holotype (studied in 1983), in NMP.

A. gagates: Holotype (sex undetermined) and paratypes (3) labelled "Pelotas Süd-Brasilien", in MHNG.

A. splendens: Holotype female, labelled "Suriname, Dirkshoop, v.1959, J. van der Drift", in RVNH; paratypes (3), same data as holotype, in HNHM.

Specimens (30). **Argentina** – Buenos Aires; Entre Rios. **Brazil** – Minas Gerais state (MG), Cordisburgo; Ipatinga. **Paraguay** – Villarica; San Pedro (Vaca Ihu); Independencia. **Suriname**. **Uruguay** – Rocha, Punta del Diablo. **Venezuela**. (CMN, HNHM, ISEA, MHNG, SMNS, TM).

D e s c r i p t i o n. Length 4.8-5.5 mm, greatest width 1.9-2.3 mm. Body elongate, shining, colour brownish black to black. Head smooth, punctures minute to fine, evenly spaced, sepa-



Figs 3-4. 3 – *Phalangochaeta transversaria* (SCHMIDT): habitus. 4 – *Ataenius crenator* HAROLD: habitus.

rated by 2-3 diameters. Pronotal punctures mixed fine and moderate in size, unevenly distributed. Male genitalia as in Fig. 2.

R e m a r k s. The lectotype measures 4.8 mm in length and 1.9 mm in greatest width and it is dark brown in colour; otherwise it does not differ significantly from the series of specimens. *Ataenius purator* seems to be most closely related to *A. fattigi* CARTW. distributed in southern US. It is more slender than *fattigi* with finer punctures of the pronotum and with smooth, almost impunctate abdominal sternites.

Ataenius opacipennis SCHMIDT

Ataenius opacipennis SCHMIDT, 1910, D. ent. Zeit.: 360.-1922, Tierreich 45: 444; DELLACASA, 1988, Mem. Soc. ent. ital. (catalogue) 66: 314.

Ataenius drifti ENDRÖDI, 1963, Nat. stud. Suriname 5: 50-52.- DELLACASA, 1988, Mem. Soc. ent. ital. (catalogue) 66: 274. **New synonymy.**

M a t e r i a l e x a m i n e d. *A. opacipennis*: Holotype (sex undetermined) labelled "Typus", "Brasilien", "*Ataenius opacipennis* m.", in NRS.

A. drifti: Holotype (sex undetermined) labelled "Suriname, La Poulle, viii.1959, J. van der Drift", in RVNH; paratypes (4), same data as holotype, in HNHM.

Specimens (60). **Brazil** – Mato Grosso state (MT)), Corumba. **Paraguay** – Villarica; Independencia; San Pedro. **Suriname**. **Venezuela** – La Linda (ISEA, SMNS, TM, ZMHB).

R e m a r k s. *Ataenius opacipennis* (2.5-3.0 mm long) varies considerably in the pronotal and elytral sculpture. It seems to be close to *A. gracilis* (MELSH.) and to *A. nocturnus* NOM.

Ataenius petrovitzi BALTHASAR

Ataenius petrovitzi BALTHASAR, 1960, Opusc. Zool. 48: 6-7.- DELLACASA, 1988, Mem. Soc. ent. ital. (catalogue) 66: 279.

Ataenius auropunctatus PETROVITZ, 1973, Studia Ent. 16: 166-168.- DELLACASA, 1988, Mem. Soc. ent. ital. (catalogue) 66: 272. **New synonymy.**

M a t e r i a l e x a m i n e d. *A. petrovitzi*: Holotype (sex undetermined) labelled "Bolivia, Espiritu, 25.iv.1954 W. Forster", in ZSM.

A. auropunctatus: Holotype (sex undetermined) labelled "Nord-Brasilien, Serra Pacaraima", in MHNG.

Specimens (26). **Bolivia** – Guayaramerin. **Brazil** – Rondonia state (Ro), SW Ariquemes; Roraima state (Rr), Serra Pacaraima. **Paraguay** – Asuncion (FSCA, HNHM, ISEA).

R e m a r k s. This species (2.5-3.0 mm long) belongs to the group of several species which are closely related to *Ataenius imbricatus* (MELSH.) and distributed from North America to Argentina.

Ataenius carinatipennis PETROVITZ

Ataenius carinatipennis PETROVITZ, 1973, Studia ent. 16: 151-152.- DELLACASA, 1988, Mem. Soc. ent. ital. (catalogue) 66: 273.

Ataenius granulipennis PETROVITZ, 1973, Studia ent. 16: 152-154.- DELLACASA, 1988, Mem. Soc. ent. ital. (catalogue) 66: 275. **New synonymy.**

M a t e r i a l e x a m i n e d. *A. carinatipennis*: Holotype male? labelled "Brasilien Piaui Teresina i.1953 leg. Oliveira", "*Ataenius carinatipennis* PETROVITZ", in MZSP; paratype "Teresina PI. Brasil", "i. 1953 Oliveira coll.", in MHNG.

A. granulipennis: Holotype female, labelled "Mamanguape Paraiba Estate Bras.", "*Ataenius granulipennis* PETROVITZ", in MHNG.

R e m a r k s. Comparison of the two holotypes showed them to be the same species, *A. carinatipennis*. No additional specimens were found in the material examined.

Ataenius complicatus HAROLD

Ataenius complicatus HAROLD, 1869, Col. Hefte 5: 102.–SCHMIDT, 1922, Tierreich 45: 425; DELLACASA, 1988, Mem. Soc. ent. ital. (catalogue) 66: 112.

Ataenius lorettii MARTINEZ, 1952, Mis. Est. Pat. r. Ar. Buenos Aires 23: 104-110, figs 38a-b, 48.–DELLACASA, 1988, Mem. Soc. ent. ital. (catalogue) 66: 277. **New synonymy.**

M a t e r i a l e x a m i n e d. *A. complicatus*: described from Brazil. Lectotype designated by CARTWRIGHT 1973, Coleopterist Bull. 27: 42, in MNHN.

A. lorettii: Holotype (sex undetermined) labelled "Argentina de Salta, Dep. General San Martin, Tartagal", "*Ataenius lorettii* MARTINEZ", in MACN; paratype "Argentina Prov. Cordoba, Dep. Ponilla, Tanti", in CMN.

Specimens (56). **Argentina** – Salta; Cordoba (Capilla del Monte, Norte Lago San Roque); Cabara Corral. **Bolivia** – Santa Cruz; Rio Pilcomayo. **Brazil** – Minas Gerais state (MG), Cordisburgo; Unai (Faz. Bolivia); Pernambuco state (PE), Recife. **Honduras** – Augustine. **Mexico** – Chiapas. **Panama** – Chiriqui. **Venezuela**. (CMN, ISEA, TM, ZMHB).

R e m a r k s. *Ataenius complicatus* (6.0-7.0 mm long) is one of the most widely distributed species, known from Mexico to Argentina. It closely resembles only one species, *A. hispidus* HAROLD, in the presence of similar character states such as wide, undulate striae and erect, sparse setae on the elytra. In the original description of *complicatus*, HAROLD (1869) commented:

"Ab *A. hispido*, cui simillimus, differt corpore minus nitido et thorace multo densius punctato". *A. hispidus* is hitherto known to occur only in Venezuela.

Ataenius impressus (PETROVITZ), comb. nov.

Didlytes impressus PETROVITZ, 1963, Ent. Arb. Mus. Frey 14: 643-644.–DELLACASA, 1988, Mem. Soc. ent. ital. (catalogue) 66: 283.

?*Phalangochaeta impressa*: STEBNICKA, 1994, Acta zool. cracov. 37: 75.

M a t e r i a l e x a m i n e d. Holotype (sex undetermined), labelled "Brasilien, Mato Grosso, Corumba, ex. coll. Kaufel", "*Dialytes impressus* m. PETROVITZ", in ZSM; paratypes (3), same data as holotype, in MHNG.

Specimens (6). **Brazil** – Goias state (Go), Lagoa Formosa (MHNG).

R e m a r k s. *Ataenius impressus* (4.5-4.8 mm long) closely resembles *A. petrovitzi* BALTH. but it can be easily distinguished from the other species in the *imbricatus*-group to which it belongs by having the first, apical tooth of protibia directed forward.

Aphotaenius convexus (HAROLD)

Saprosites convexus HAROLD, 1880, Ent. Zeit. Stettin 41: 38-39.–SCHMIDT, 1922, Tierreich 45: 408; DELLACASA, 1988, Mem. Soc. ent. ital. (catalogue) 66: 288.

Aphotaenius colombiensis CARTWRIGHT, 1952, Proc. U.S. nat. Mus. 102: 183.–CHALUMEAU, 1983, Bull. Soc. ent. Mulhouse 1: 4, fig. 6; DELLACASA, 1988, Mem. Soc. ent. ital. (catalogue) 66: 271. **New synonymy.**

Type data. *Saprosites convexus*: described from Columbia, Bogota [La Luzera, Medellin]. Location of type unknown. *Aphotaenius colombiensis*: described from Columbia. Holotype in NMNH.

M a t e r i a l e x a m i n e d. Specimen compared with holotype, labelled "Columbia, Guasca, Cundinamarca", "*Aphotaenius colombiensis*, det. O.L. CARTWRIGHT", in ISEA; 11 speci-

mens labelled "Columbia, Bogota, O. Thieme", "87336, 87335". " *Saprosites convexus* HAR. A. SCHMIDT det." (ZMHB).

D e s c r i p t i o n. Length 3.5-3.6 mm. Head nearly smooth, impunctate, clypeal margin denticulate. Prosternum with large, laterally compressed process. Meso- and metatibiae with incomplete transverse ridges; apex of metatibia with two triangular teeth.

R e m a r k s. In the genus *Aphotaenius* CARTWRIGHT, the apical fringe of setae of the metatibia found in the genus *Ataenius* is replaced by two or three teeth similar to those occurring in *Saprosites* REDTENBACHER. *Aphotaenius convexus* is most closely related to *A. carolinus* (VAN DYKE) described from North Carolina. Both species show similarities in their pronotal and elytral characters and in the shape of metatibiae, but they significantly differ in size. In *convexus*, the basal marginal line of the pronotum is widely broken at middle, the pronotal punctures are larger and the elytral striae are deeper than in *carolinus*.

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