

1968:376 (host pl., distr.); Kingsolver and Silva, 1991:414 (cit.).

The type series of *Spermophagus luteonotatus* (3 and 1) was studied and a lectotype (σ) is here designated. The lectotype has the labels: 1) Brésil (Gounelle), [white]; 2) Type, [orange]; 3) Museum Paris, Coll. M. Pic, [green]; 4) *spectabilis* Shp., illegible letters, [white]; 5) Lectotype, [red]; 6) *luteonotatus* Pic, det.70, J. M. Kingsolver, [white]; 7) *Amblycerus luteonotatus* (Pic) det.75, J.M.Kingsolver. The paralectotypes also have the label: Brésil (Gounelle). The type material is deposited in the MNHN.

A manuscript label on the lectotype pin of *A. luteonotatus* reads: "*spectabilis* Sharp". Comparison with the holotype of *spectabilis* revealed that it is not related to *A. luteonotatus*, and is obviously a misidentification.

***Amblycerus multimaculatus* (Pic, 1902).**

Spermophagus multimaculatus Pic, 1902:172 (desc., distr.).

Amblycerus multimaculatus: Blackwelder, 1946:763 (cat., distr.); Udayagiri and Wadhi, 1989:12 (cat., distr.).

Spermophagus minasensis Pic, 1918:8 (desc., distr.); Udayagiri and Wadhi, 1989:25 (cat., distr.). **New Synonymy.**

The syntypic series of *Spermophagus multimaculatus* (2 and 1) was studied and the lectotype (σ) selected. The lectotype labels are: 1) Brésil (Gounelle), [white]; 2) Type, [yellow]; 3) Museum Paris, Coll. M. Pic [green]; 4) lectotype [red]; 5) *multimaculatus*, Pic, [white]; 6) *Amblycerus multimaculatus* (Pic) det.75, J. M. Kingsolver, [white]; 7) Lectotype [written in red], *Spermophagus multimaculatus*, Pic, by Kingsolver, 1975. The paralectotypes also have the label: Brésil (Gounelle). The type material is deposited in the MNHN.

The holotype (σ) of *Spermophagus minasensis*, has the label data: Brésil (Minas), Campos de Diamantina, Faz. do Riacho Fundo, E.Gounelle, 12 1902. It was examined by J. M. Kingsolver who returned it to the MNHN. C. S. Ribeiro-Costa, later requested the holotype for study but it was lost in the mail in transit to Brazil.

***Amblycerus paulonotatus* (Pic, 1906), new status**

Spermophagus luteonotatus var. *paulonotatus* Pic, 1906:3 (desc., distr.); Udayagiri and Wadhi, 1989:25 (cat., distr.).

Amblycerus luteonotatus var. *paulonotatus*: Blackwelder, 1946:762 (cat., distr.).

The holotype of *A. luteonotatus* var. *paulonotatus* deposited in the MNHN was examined. The labels are: 1) (prob.) L'Échange, no.253 (handwritten, illegible), 1906 p.3, [white]; 2) n.sp., [white]; 3) Caraça, (Minas Geraez), Brésil, E. Gounelle, 1.2.1885, [white]; 4) *luteonotatus* v. *paulonotatus*, Pic, [white]; 5) *luteonotatus* v. *paulonotatus* Pic, det.70, J. M. Kingsolver, [white]; 6) Type, [white]; 6) Holotype, [red]; 7) Museum Paris, Coll. M.Pic, [green].

The *paulonotatus* variety of *Spermophagus luteonotatus* can be distinguished from *A. luteonotatus* (Pic,1902) by a different distribution of fulvous dorsal vestiture, elongated scutellum, prosternal process reaching mesosternum and subequal hind tibial spurs. These characters are sufficient to elevate the varietal name *paulonotatus* to the specific level.

***Amblycerus perfectus* (Sharp, 1881)**

Spermophagus perfectus Sharp, 1885:498 (desc., distr.); Sharp, 1885:499 (cit.); Pic, 1913:60 (cat., distr.).

Amblycerus perfectus: Blackwelder, 1946:763 (cat., distr.); Janzen, 1977:418 (host pl.); Janzen, 1978:183 (host pl.); Janzen, 1980:947 (host pl.); Luca, 1980:40 (cit.); Kingsolver, 1980:235 (cit., distr.); Johnson and Kingsolver, 1982:410 (cat., distr.); Udayagiri and Wadhi, 1989:12 (cat., distr.).

Spermophagus maculatopygus Pic, 1927:187 (desc., distr.). **New Synonymy.**

Amblycerus maculatopygus: Blackwelder, 1946:762 (cat., distr.); Udayagiri and Wadhi, 1989:11 (cat., distr.).

The holotype (σ) of *A. perfectus* has the label: Tehuantepec, México, Sallé. This specimen is deposited in the NHML.

The syntypic series (2 σ and 1 σ) of *Spermophagus maculatopygus* was studied; each specimen has the label: Cuyaba, Mtt. Grosso. A lectotype (σ) and the paralectotypes are here designated. The type material is deposited in the MNHN.

***Amblycerus pollens* (Sharp, 1885)**

Spermophagus pollens Sharp, 1885:495 (desc., distr.); Pic, 1913:61; cat.).

Amblycerus pollens: Blackwelder, 1946:763 (cat., distr.); Johnson and Kingsolver, 1982:410 (cat., distr.); Udayagiri and Wadhi, 1989:13 (cat., distr.).

Spermophagus subflavidus Pic, 1902:172 (desc., distr.); Pic, 1913:62 (cat., distr.).

Amblycerus subflavidus: Blackwelder, 1946:763 (cat., distr.); Kingsolver, 1976:151 (syn.); Johnson and Kingsolver, 1982:410 (cat., distr.); Udayagiri and Wadhi, 1989:13 (cat., distr.).

The holotype of *A. pollens*, deposited in the NHML, was examined and has the following labels: 1) *Spermophagus pollens*. Type. D. S., Belize., Blancaneaux, [white]; 2) Type, [white with red margin]; 3) Belize. Blancaneaux, [white]; 4) B. C. A., Col.V., *Spermophagus pollens* Sharp., [white].

The syntypes of *Spermophagus subflavidus* (3 ♂) were also examined, each one with the label: Brésil, (Gounelle). The lectotype and paralectotypes are here designated. This material is deposited in the MNHN.

***Amblycerus reticulatus* (Jekel, 1855)**

Spermophagus reticulatus Jekel, 1855:135 (desc., distr.); Gemminger and Harold, 1873:3218 (cat.); Pic, 1913:61 (cat.).

Amblycerus reticulatus: Blackwelder, 1946:763 (cat., distr.); Costa Lima, 1955:249 (host pl.); Silva *et al.*, 1968:376 (host pl., distr.); Udayagiri and Wadhi, 1989:14 (cat., distr.).

Spermophagus rufotestaceus Pic, 1912:69 (desc., distr.); Pic, 1913:61 (cat., distr.). **New Synonymy.**

Amblycerus rufotestaceus: Blackwelder, 1946: 763 (cat., distr.); Udayagiri and Wadhi, 1989:14 (cat., distr.).

The *A. reticulatus* holotype, deposited in the NHML, was examined and bears the labels: 1) 53271, Type, Br.Mus., Brasilia; 2) *Spermophagus reticulatus* Jek. Ins. Saund.

The holotype (♀) of *A. rufotestaceus*, was examined and is deposited in the MNHN. The label is: Rio de Janeiro, (an *Tiere Angustalis*).

***Amblycerus trisignatus* (Sharp, 1885).**

Spermophagus trisignatus Sharp, 1885:498 (desc.); Pic, 1913:62 (cat.).

Amblycerus trisignatus Blackwelder, 1946:762 (cat.); Johnson and Kingsolver, 1982:411 (cat., distr.); Udayagiri and Wadhi, 1989:16 (cat., distr.).

One of six syntypic specimens of *Spermophagus trisignatus* was examined and selected as lectotype. It is deposited in the NHML and has the labels: 1) Cubilguitz, Vera Paz, Champion; 2) Type (round with red margin); 3) Lectotype (round with blue margin); 4) Sharp Coll. 1905-313, 5a. BCA Col.V.; 5) *Spermophagus trisignatus* Sharp [white]; 6) Lectotype, *Amblycerus trisignatus* (Sharp, 1885), C.S. Ribeiro-Costa, det. 1993 [red]. As quoted in the original description of this species there are 5 more type specimens that are here designated as paralectotypes.

***Amblycerus unimaculatus* (Pic, 1955), new combination**

Spermophagus unimaculatus Pic, 1955:3 (desc., distr.)

The type material of *Spermophagus unimaculatus* (2♀, 1♂) is deposited in the MNHN. The labels of the holotype (♂) are: 1) Caracas, Venezuela, [white]; 2) type [orange]; 3) *unimaculatus* n.sp. [white]. The paratypes (1♀, 1♂) are identically labeled except for the type label.

Acknowledgments

We would like to thank Dra. Sharon L. Shute from Natural History Museum -London, Dra. Nicole Berti from Muséum National d'Histoire Naturelle, Paris, and Miss Gloria House from the National Museum of Natural History, Washington, D. C., for loaning bruchid type material. This is Contribution No. 946 from the Departamento de Zoologia, Universidade Federal do Paraná, Curitiba, Brazil.

References

- Blackwelder, R. E. 1946. Checklist of the coleopterous insects of México, Central America, the West Indies, and South America. U.S. National Museum Bulletin 185(4):551-763.
- Bondar, G. 1931. Notas biológicas sobre bruquídeos brasileiros do gênero *Spermophagus*. Correio agrícola 11(4):55-59.
- Bondar, G. 1937. Notas biológicas sobre bruquídeos observados no Brasil. Archivos Instituto Biologia Vegetal 3(1):7-44.
- Bosq, J. M. 1942. Segunda lista de Coleópteros de la República Argentina, dañinos a la Agricultura. Ingeniería Agronómica 4(18-22):44-47.
- Brèthes, J. 1925. Coléoptères et diptères chilensis. Revista Chilena Historia Natural 29:198-208.
- Costa Lima, A. 1955. Insetos do Brasil. Coleópteros, t.9, 3a. parte. Escola Nacional de Agronomia, Série Didática, Rio de Janeiro, 289p.
- Gemminger, M., and B. Harold. 1873. Catalogus coleopterorum hucusque descriptorum synonymicus et systematicus [Cerambycidae (Lamiinae), Bruchidae]. v.10, pars I, Paris:2989-3232.
- Guérin, J. 1953. Coleópteros do Brasil. Editado Faculdade pela Filosofia, Ciências e Letras da Universidade de São Paulo, Departamento de Zoologia e de Fisiologia Geral e Animal, São Paulo, 356p.
- Janzen, D. H. 1977. The interaction of seed predators and seed chemistry, p.415-428. *In* V. Labeyrie (ed.) Colloques Internationaux du C.N.R.S., Paris. 493 pp.
- Janzen, D. H. 1978. The ecology and evolutionary biology of seed chemistry as relates to seed predation. p.164-206 *In*: Harborne, J.H. Biochemical aspects of plant and animal coevolution. Academic Press, London, 435 p.
- Janzen, D. H. 1980. Specificity of seed-attacking beetles in a Costa Rican deciduous forest. Journal of Ecology 68:929-952.

- Jekel, H.** 1855. *Insecta Saundersiana: or characters of undescribed insects in the collection of William Wilson Saunders.* (Coleoptera)(Bruchidae, pp. 1-37), London. 242p.
- Johnson, C. D., and J. M. Kingsolver.** 1975. Ecology and redescription of the Arizona grape bruchid *Amblycerus vitis* (Coleoptera). *Coleopterists Bulletin* 29(4):321-331.
- Johnson, C. D., and J. M. Kingsolver.** 1982. Checklist of the Bruchidae (Coleoptera) of Canada, United States, Mexico, Central America, and the West Indies. *Coleopterists Bulletin* 35(4):409-422.[1981].
- Kingsolver, J. M.** 1970. A synopsis of the subfamily Amblycerinae Bridwell in the West Indies, with descriptions of new species (Coleoptera: Bruchidae). *Transactions of the American Entomological Society* 96:469-497.
- Kingsolver, J. M.** 1976. A new species of *Amblycerus* from Panama (Coleoptera: Bruchidae). *Journal of the Washington Academy of Sciences* 66(2):150-151.
- Kingsolver, J. M.** 1980. Eighteen new species of Bruchidae, principally from Costa Rica, with host records and distributional notes (Insecta: Coleoptera). *Proceedings of the Biological Society of Washington* 93(1):229-283.
- Kingsolver, J. M.** 1990. Checklist of Chilean Bruchidae with new synonymies and new combinations (Coleoptera). *Revista Chilena de Entomologia* 18:49-52.
- Kingsolver, J. M., and P. Silva.** 1991. Update of scientific names of Bruchidae (Coleoptera) listed by Bondar in "Notas Biológicas" (1931 and 1936). *Anais da Sociedade de Entomológica do Brasil* 20:411-415.
- Luca, Y. de.** 1980. Catalogue des metazoaires parasites et predateurs des bruchides (Col.)(4 Note)(1). *Bulletin de la Societe National de Nimes* 86:37-55.
- Muruaga de L'Argentier, S.** 1983. Observaciones sobre Bruchidae (Coleoptera) del noroeste argentino. V. Estudios morfológicos y biológicos de *Amblycerus longesuturalis* (Pic). *Acta Zoologica Lilloana* 37(1):91-100.
- Pic, M.** 1902. Description de Coléoptères Nouveaux. Bruchidae del'Amérique méridionale. *Le Naturaliste* 24:172.
- Pic, M.** 1906. Nouveaux Coléoptères d'Europe, Asie, Afrique et Amérique. *L'Échange* 22:1-5.
- Pic, M.** 1910. Plusieurs nouveaux coléoptères de la République Argentine. *Revista del Museo de La Plata* 17:108-110.
- Pic, M.** 1911. Coléoptères exotiques nouveaux ou peu connus (suite). *L'Échange* 27:149-152.
- Pic, M.** 1912. Coléoptères exotiques nouveaux ou peu connus (suite). *L'Échange* 28:68-69.
- Pic, M.** 1913. *Coleopterorum Catalogus.* Pars 55, Bruchidae. W. Junk, Berlin, v.26, 74p.
- Pic, M.** 1917. Trois nouveaux *Spermophagus* Schoenh. (Col.Bruchidae). *Bulletin de la Societe Entomologique de France* 1917:302-303.
- Pic, M.** 1918. Courtes descriptions diverses. *Mélanges Exotico-Entomologiques* 27:1-24.
- Pic, M.** 1927a. Nouveaux Coléoptères du Globe. *Bulletin de la Societe Zoologique de France* 52:106-110, 185-189.
- Pic, M.** 1927b. Nouveautés diverses. *Mélanges Exotico-Entomologiques* 48:1-32.
- Pic, M.** 1929. Nouveautés Diverses. *Mélanges Exotico-Entomologiques* 53:1-36.
- Pic, M.** 1954. Coléoptères du Globe (cont'd). *L'Échange* 70(538):13-16.
- Pic, M.** 1955. Coléoptères du Globe (suite). *L'Échange* 71(539):1-3.
- Sharp, D.** 1885. *Biologia Centralia-Americana, Insecta, Coleoptera, Bruchidae* 5:437-504.
- Silva, A. G., C. R. Gonçalves, D. M. Galvão, A.L. Gonçalves, J. Gomes, M. Silva, and L. Simoni.** 1968. Quarto catálogo dos insetos que vivem nas plantas do Brasil, seus parasitos e predadores. 1° tomo. Insetos, hospedeiros e inimigos naturais. Parte II. Ministério da Agricultura, Laboratório Central de Patologia Vegetal. Rio de Janeiro. 622p.
- Steven, C.** 1833. *In: Schönherr, C.J. Genera et species curculionidum cum synonymia hujus familiae* 1(1), Roret, Paris, 381p.
- Terán, A.** 1984. Observaciones sobre Bruchidae (Coleoptera) del noroeste argentino. VI. Estudios morfológicos y biológicos de *Amblycerus testaceus*. *Acta Zoologica Lilloana* 37(2):207-217.
- Terán, A., and S. Muruaga de L'Argentier.** 1979. Observaciones sobre Bruchidae (Coleoptera) del noroeste argentino. II. Estudios morfológicos y biológicos de algunas especies de Amblycerinae y Bruchinae. *Acta Zoologica Lilloana* 35(1):435-474.
- Terán, A., and S. Muruaga de L'Argentier.** 1981. Observaciones sobre Bruchidae (Coleoptera) del noroeste argentino. IV. Estudios morfológicos y biológicos de *Amblycerus hoffmanseggi* (Gyll.), *Acanthoscelides comptus* Kingsolver y *Merobruchus bicoloripes* (Pic). *Acta Zoologica Lilloana* 36(2):61-84.
- Thunberg, C. P.** 1815. De coleopteris rostratis. *Nova Acta Regiae Societatis Scientiarum Upsaliensis* 7:104-125.
- Udayagiri, S., and S. R. Wadhi.** 1989. Catalog of Bruchidae. *Memoirs of the American Entomological Institute* 45. 301p.
- Zacher, F.** 1952. Die Nährpflanzen der Samenkafer. *Zeitschrift für Angewandte Entomologie* 33:460-480.