

Aganocrossus or Agonocrossus? Choice of the correct original spelling (Coleoptera, Aphodiidae)

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Abstract: Reitter (1895) used two spellings, *Aganocrossus* and *Agonocrossus*, for a new subgenus. For the sake of nomenclatural stability, *Aganocrossus*, which has been used by all subsequent authors except one, is here selected, under Article 24.2.3 of the Code, as the correct original spelling.

Key words: Coleoptera, Aphodiidae, *Aganocrossus*, *Agonocrossus*, Reitter (1895), correct original spelling.

Aganocrossus o Agonocrossus? Selección de la grafía original correcta (Coleoptera, Aphodiidae)

Resumen: Reitter (1895) usó dos grafías, *Aganocrossus* y *Agonocrossus*, para un subgénero nuevo. En aras de la estabilidad nomenclatural, se selecciona aquí como grafía original correcta, según el Artículo 24.2.3 del Código, *Aganocrossus*, que es la forma usada por todos los autores posteriores excepto uno.

Palabras clave: Coleoptera, Aphodiidae, *Aganocrossus*, *Agonocrossus*, Reitter (1895), ortografía original correcta.

The motivation for this note is nomenclatural stability. I regard the stability and universality of scientific names of animals as highly desirable, as well as that the name of each taxon is unique and distinct. These are precisely the objectives of the International Code of Zoological Nomenclature (hereafter referred to as “the Code”), as stated in its Preamble. I believe that the surest way to achieve those objectives is to adhere to the rules set up in the Code.

Reitter (1895) wrote twice the name of a new subgenus, using different spellings. In page 208 he wrote “*Aganacrossus* nov. subgen. Aphodinarum”, and in page 209 “*Agonocrossus* postpilosus n. sp.”, which is the type species by monotypy. Obviously, one of these spellings has to be either a *lapsus calami* or a typographical error, but which one is impossible to tell (see below).

The Code rules that (Article 32.2.1): «If a name is spelled in more than one way in the work in which it was established, then, except as provided otherwise in this Article, the correct original spelling is that chosen by the First Reviser [Art. 24.2.3] (or, if applicable, by an original author when acting as First Reviser [Art. 24.2.4]).» And in Article 24.2.3: «**Selection of correct original spellings.** If a name is spelled in more than one way in the original work, the first author to have cited them together and to have selected one spelling as correct is the First Reviser. The selected spelling (if not incorrect under Articles 32.4 or 32.5) is thereby fixed as the correct original spelling; any other spelling is incorrect (and therefore unavailable [Art. 32.4]).»

Whether Reitter (1895) intended the name of his new subgenus as derived from the Greek *αγανος* (*aganos* = kind, mild, gentle), hence *Aganocrossus*, or *αγονος* (*agonos* = sterile, barren, empty), hence *Agonocrossus*, is impossible to tell. However, in nomenclatural terms that is irrelevant and, whatever the case might be, the fact is that all subsequent authors, but one, used the spelling *Aganocrossus*: Balthasar (1939; 1940; 1941; 1945; 1964), Baraud (1985), Bordat (1990; 1992; 2008), Bordat & G. Dellacasa (1996), Dellacasa, G. *et al.* (2001), Dellacasa, M. (1988), Dellacasa, M. & G. Dellacasa (2006), Endrödi (1960; 1964), Endrödi & Rakovič (1981), Masumoto *et al.* (1990), Paulian (1942), Petrovitz (1958; 1962; 1973), Schmidt (1907, 1910a; 1910b; 1913; 1922), and Winkler (1929). The exception is Müller (1941), who used the spelling *Agonocrossus*. However Müller (1941) did not explain the reasons for his choice, and he did not cite the alternative spelling *Aganocrossus*. Also none of the authors who used the spelling *Aganocrossus* did cite the alternative spelling *Agonocrossus*, not even Neave (1939) who listed only *Aganocrossus*. Therefore, none of these authors acted as First Reviser in the sense of the Code. Hence, for the sake of nomenclatural stability, I here select, under Article 24.2.3 of the Code, *Aganocrossus* as the correct original spelling for the taxon described by Reitter (1895) under the names *Aganocrossus* and *Agonocrossus*. As a consequence, *Agonocrossus* becomes an incorrect subsequent spelling, thus not available from Reitter (1895) (Articles 24.2.3 and 32.4), and it could be validly used, but perhaps not advisably, as the name for any new taxon of the genus group.

References: BALTHASAR, V. 1939. Neue Arten der coprophagen Scarabaeiden aus dem Museo Zoologico della R. Università di Firenze. *Redia*, **25**: 1-36. ● BALTHASAR, V. 1940. Einige nomenclatorische Berichtigungen. *Entomologische Blätter*, **36**: 38-39. ● BALTHASAR, V. 1941. Gli Scarabeidi coprofagi e trogini dell’Africa Orient. Italiana del Museo di Milano (LXIV contributo alla conoscenza degli Scarabaeidi). *Atti della Società Italiana di Scienze Naturali e del Museo civico di Storia Naturale di Milano*, **80**: 103-154. ● BALTHASAR, V. 1945. Les espèces nouvelles des Scarabaeidae Laparosticti. *Acta Entomologica Musei Nationalis Pragae*, **23**: 161-166. ● BALTHASAR, V. 1964. *Monographie der Scarabaeidae und Aphodiidae der palaearktischen und orientalischen Region (Coleoptera: Lamellicornia). Band 3. Aphodiidae.* Tschechoslowakischen Akademie der Wissenschaften, Prague, 652 pp., 2 pls. ● BARAUD, J. 1985. *Coléoptères Scarabaeoidea. Faune du Nord de l’Afrique du Maroc au Sinaï.* Encyclopédie Entomologique, 46. Lechevalier, Paris. 652 pp. ● BORDAT, P. 1990. Coléoptères Aphodiidae, Sous-famille Aphodiinae & Eupariinae. Pp. 17-129. In Bordat, P., R. Paulian & R. Pittino, *Faune de Madagascar. 74. Insectes Coléoptères Aphodiidae.* Muséum national d’Histoire naturelle, Paris, 255 pp. ● BORDAT, P. 1992. Révision des *Aphodius*, sous-genre *Aganocrossus* de la région afrotropicale (Col.: Scarabaeoidea: Aphodiidae). *Annales de la Société entomologique de France (Nouvelle Série)*, **28**: 339-364. ● BORDAT, P. 2008. Trois nouvelles espèces de *Aganocrossus* de la région afrotropicale et redescription de *Aphodius ingloriosus* Schmidt, 1916 (Coleoptera, Scarabaeoidea, Aphodiidae). *Bulletin de la Société entomologique de France*, **113**: 197-206. ● BORDAT, P. & G. DELLACASA 1996. *Aphodius (Aganocrossus) postpilosus* Reitter, 1895, bona species (Coleoptera, Aphodiidae). *Bollettino della Società Entomologica Italiana*, **128**: 143-150. ● DELLACASA, G, P. BORDAT & M. DELLACASA 2001. A revisional essay of world genus-group taxa of Aphodiinae (Coleoptera Aphodiidae). *Memorie della Società Entomologica Italiana*, **79**: 1-482. ● DELLACASA, M. 1988. Contribution to a world-wide catalogue of Aegialiidae, Aphodiidae, Aulonocnemidae, Termitotrogidae (Coleoptera Scarabaeoidea). *Memorie della Società Entomologica Italiana*, **66** [1987]: 3-455. ● DELLACASA, M. & G. DELLACASA 2006. Tribe Aphodiini Leach, 1815. Pp. 105-142. In: Löbl, I. & A. Smetana (eds.), *Catalogue of Palaearctic Coleoptera. Volume 3: Scarabaeoidea - Scirtoidea - Dascilloidea - Buprestoidea - Byrrhoidea.* Apollo Books, Stenstrup. 690 pp. ● ENDRÖDI, S. 1960. Mission Zoologique de l’I.R.S.A.C. en Afrique Orientale (P. Basilewsky et N. Leleup, 1957). Résultats Scientifiques. Deuxième Partie. XLII. Coleoptera Scarabaeidae Aphodiinae, Die Aphodiinae von Ost-Afrika. *Annales du Musée Royal du Congo Belge, Série in-8° – Sciences Zoologiques*, **88**: 67-249. ● ENDRÖDI, S. 1964. Die Aphodiinae des Congo-Gebietes in Rahmen der Fauna von Zentral-Afrika (Coleoptera Scarabaeidae). *Annales du Musée Royal de l’Afrique Centrale, Ser. 8°, Sciences Zoologiques*, **123**, 415 pp. ● ENDRÖDI, S. & M. RAKOVIČ 1981. Key to the species of South and Southwest African Aphodiinae. *Folia entomologica hungarica*, **42**: 31-77. ●

MASUMOTO, K., G. DELLACASA & M. KIUCHI 1990. On the *Aphodius* species of Japan. *Entomological Review of Japan*, **45**: 145-156. • MÜLLER, G. 1941. Nuovi Coleotteri dell'Africa Orientale. *Atti del Museo civico di Storia naturale di Trieste*, **14**: 319-352. • NEAVE, S.A. 1939. *Nomenclator Zoologicus. A List of the Names of Genera and Subgenera in Zoology from the Tenth Edition of Linnaeus 1758 to the End of 1935. Vol. 1, A-C*. The Zoological Society of London, London, xiv + 957 pp. • PAULIAN, R. 1942. Exploration du Parc National Albert. Mission G. F. de Witte (1933-35). Fasc. **35**. Aphodiinae (Coleoptera Lamellicornia) Fam. Scarabaeidae. *Institut des Parcs Nationaux du Congo Belge*, 143 pp., 23 pls. • PETROVITZ, R. 1958. Neue afrikanischen Aphodiusarten (Col. Scarab.). *Entomologische Arbeiten aus dem Museum G. Frey*, **9**: 140-159. • PETROVITZ, R. 1962. Neue und verkannte Aphodiinae aus allen Erdteilen (Col. Scarab.). III Teil. *Entomologische Arbeiten aus dem Museum G. Frey*, **13**: 101-131. • PETROVITZ, R. 1973. Neue Aphodiinae aus dem aethyopischen Faunengebiet (Coleoptera Scarabaeidae). *Atti della Società iatliana di Scienze naturali e del Museo civile*

de Storia naturale, Milano, **114**: 51-70. • REITTER, E. 1895. Einige neue Coleopteren aus Korea und China. *Wiener entomologische Zeitung*, **14**: 208-210. • SCHMIDT, A. 1907. Zusammenstellung der bis 1906 beschriebenen Aphodiinen. *Deutsche entomologische Zeitschrift, Beilage*, **1907-1908**: 1-141. • SCHMIDT, A. 1910a. Coleoptera Lamellicornia, Fam. Aphodiidae. 110^{me} Fascicule. In: P. Wytzman (ed.), *Genera Insectorum*. Tervueren, 155 pp, 3 pls. • SCHMIDT, A. 1910b. Aphodiinae. Pars 20, Vol. 19(4). In: S. Schenkling (ed.), *Coleopterorum Catalogus*. W. Junk, Berlin, 111 pp. • SCHMIDT, A. 1913. Erster Versuch einer Einteilung der exotischen Aphodien in Subgenera und als Anhang einige Neubeschreibungen. *Archiv für Naturgeschichte. Abtheilung A, Original-Arbeiten*, **79**: 117-178. • SCHMIDT, A. 1922. *Coleoptera, Aphodiinae*. In: C. Apstein (ed.), *Das Tierreich. Eine Zusammenstellung und Kennzeichnung der Rezenten Tierformen*. 45. Lieferung. Walter de Gruyter & Co., Berlin und Leipzig, xxxvi + 614 pp. • WINKLER, A. 1929. Pars 9. Pp. 1009-1136. In: A. Winkler, *Catalogus Coleopterorum regionis palaearcticae*. A. Winkler, Wien, vii + 1698 pp.

On the presence of *Scutigera coleoptrata* (Linnaeus, 1758) (Chilopoda: Scutigermorpha: Scutigeridae) in the Metropolitan Region, Chile

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Abstract: The presence of the house centipede *Scutigera coleoptrata* (Linnaeus, 1758) is reported for the first time from the Metropolitan Region of Chile, on the basis of specimens collected in houses of Ñuñoa and Providencia in Santiago city.

Key words: Scutigermorpha, Scutigeridae, *Scutigera coleoptrata*, new records, Chile, Metropolitan Region, Santiago.

Sobre la presencia de *Scutigera coleoptrata* (Linnaeus, 1758) en la Región Metropolitana, Chile

Resumen: Se reporta por primera vez la presencia del ciempiés *Scutigera coleoptrata* (Linnaeus, 1758) en la Región Metropolitana de Chile, en base a ejemplares colectados en casas de Ñuñoa y Providencia, en la ciudad de Santiago.

Palabras clave: Scutigermorpha, Scutigeridae, *Scutigera coleoptrata*, nuevos registros, Chile, Región Metropolitana, Santiago.

Scutigermorpha is an order of centipedes nearly worldwide distributed (Edgecombe 2007), which contains 96 species classified in 26 genera (Stoëv & Geoffroy, 2004). This group is easily to recognize from other centipedes by having composed eyes, dorsal spiracles and multisegmented tarsi (Edgecombe & Giribet, 2006).

Scutigermorpha is represented in Chile by 2 species: *Sphendononema chagualensis* Kraus, 1957 and *Scutigera coleoptrata* (Linnaeus, 1758) (Pérez-Schultheiss & Mosqueira, 2009).

The "House Centipede" *Scutigera coleoptrata* is a cosmopolitan species associated to humans (Acosta, 2003). In Chile it was recently cited for first time, on basis of material from Osorno 40°35'S 72°10'W in Los Lagos Region, Southern Chile by Pérez-Schultheiss & Mosqueira (2009). Additionally the authors wrote that probably the species also occurs in Central Chile, without more exact data. No additional data have been published lately, and here the first formal records from the Central Chile are provided:

MATERIAL EXAMINED: Chile, Metropolitan Region: Santiago [33°26' 16"S 70°39'01"W], Ñuñoa, 24-II-2010. 3 ♀♀, 1 ♂, leg. R. Fernández; Santiago, Providencia 2 ♀♀, leg. A. Donoso (all deposited in author's collection).

Specimens were collected in human habitations, and additionally more specimens were commonly observed in houses of the collection localities (Fig. 1).

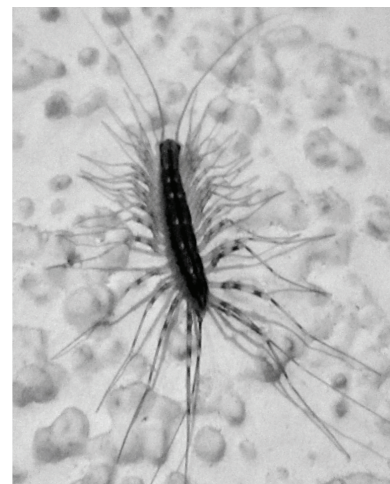
Pérez-Schultheiss & Mosqueira (2009) wrote that the presence of *S. coleoptrata* in Chile is probably from long time ago. It is very possible that this species arrived to Chile in Central Zone, because of the commercial exchange and the people movement; and after it was carried by the man to other localities, reaching the far South.

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Fig.1. *Scutigera coleoptrata*, Specimen in a house of Ñuñoa.

Fig.1. *Scutigera coleoptrata*. Ejemplar en una casa de Ñuñoa.



Bibliography: ACOSTA, C. A. 2003. The house centipede (*Scutigera coleoptrata*; Chilopoda): controversy and contradiction. *Journal of the Kentucky Academy of Science*, **64**(1): 1-5. • EDGECOMBE, G. D., 2007. Centipede systematics: progress and problems. *Zootaxa*, **1668**: 327-341. • EDGECOMBE, G. D. & G. GIRIBET 2006. A century later – a total evidence re-evaluation of the phylogeny of scutigermorph centipedes (Myriapoda:Chilopoda). *Invertebrate Systematics*, **20**: 503-525. • PÉREZ-SCHULTHEISS, J. & U. R. MOSQUEIRA 2009. Primer registro del ciempiés *Scutigera coleoptrata* (Linnaeus, 1758) (Chilopoda: Scutigermorpha: Scutigeridae) en Chile. *Boletín de Biodiversidad de Chile*, **1**(1): 38-41. • STOEV, P. & J. J. GEOFFROY 2004. An annotated catalogue of the Scutigermorpha centipedes in the collection of the Muséum National d'Histoire Naturelle, Paris (France) (Chilopoda: Scutigermorpha). *Zootaxa*, **635**: 1-12.