



<http://dx.doi.org/10.11646/zootaxa.3734.1.9>

<http://zoobank.org/urn:lsid:zoobank.org:pub:F26B4967-3703-46A4-A894-1B7904B0C6AA>

## A new species of *Sicoderus* Vanin from Bolivia (Coleoptera: Curculionidae: Curculioninae: Otidocephalini)

SERGIO A. VANIN<sup>1</sup> & BRUNO A. S. DE MEDEIROS<sup>2</sup>

<sup>1</sup>Instituto de Biociências, Universidade de São Paulo, CP 26077, 05513-970, Brasil. E-mail: [savanin@ib.usp.br](mailto:savanin@ib.usp.br)

<sup>2</sup>Museum of Comparative Zoology, Department of Organismic & Evolutionary Biology, Harvard University, 26 Oxford St, Cambridge, MA 02138, USA. E-mail: [souzademedeiros@fas.harvard.edu](mailto:souzademedeiros@fas.harvard.edu)

### Abstract

*Sicoderus robini* sp. nov. (type locality: Bolivia, Santa Cruz de la Sierra, Buena Vista, El Cairo) is described and illustrated. The new species is assigned to the *Sicoderus appendiculatus* species group, compared with similar species of the group and with the two other species of *Sicoderus* that occur in Bolivia. The previously published key for species identification of the *S. appendiculatus* group is updated to include the new species.

**Key words:** Erodiscina, Neotropical Region, weevil, key

### Introduction

During a trip to Santa Cruz de la Sierra (Buena Vista), Bolivia, carried out in November 2008 by Maria Helena M. Galileo (Museu de Ciências Naturais, Fundação Zoobotânica do Rio Grande do Sul), Sergio A. Vanin (Instituto de Biociências, Universidade de São Paulo) and Ubirajara R. Martins (Museu de Zoologia, Universidade de São Paulo - MZSP), to collect weevils and long-horned beetles, a single specimen belonging to *Sicoderus* Vanin, 1986 was captured by using a beating sheet in the locality of "El Cairo", an area with patches of tropical humid forest. At the time of manuscript submission, Dr. Robert S. Anderson (Canadian Museum of Nature, Ottawa, Canada - CMNC) told us about similar specimens deposited in his museum and in the Florida State Collection of Arthropods (FSCA), Gainesville, FL, USA. Dr. Paul Skelley and François Génier, collection managers of FSCA and CMNC, respectively, promptly sent us these specimens of *Sicoderus*, all collected in the neighborhood of Santa Cruz (Bolivia). Among the received material, 4 males and 1 female proved to be conspecific, which led us to improve the original description of the new species by adding the female characters and the variation in the male.

Since the last revision of the tribe Erodiscini (Alonso-Zarazaga and Lyal 1999, Bouchard *et al.* 2011) by Vanin (1986), three additional species of *Sicoderus* were described by Anderson (1998) from the Virgin Islands of the West Indies. The Bolivian specimens reported herein were recognized to represent a new species of *Sicoderus*, which is assigned to the *S. appendiculatus* group and described below. Including the new species, *Sicoderus* now comprises 61 species and 17 species groups (Vanin 1986, 1989; Wibmer & O'Brien 1986, 1989; Anderson 1998).

### Material and methods

In compliance with Bolivian laws, the holotype will be deposited at the "Museu Noel Kempf Mercado", Santa Cruz de la Sierra, Bolivia (MNKM). Paratypes will be deposited in CNMC, FSCA and MZSP. Measurements and proportions, preparation of male genitalia, line drawings and the taxonomic description follow Vanin (1986); the morphological terminology was updated, according to Lawrence *et al.* (2010). Photographs of the adult were taken in a stereomicroscope Leica M125 with coupled Magnifier in DV camera Leica DFC. The label data of types are reported exactly as were originally printed; each line in the label is separated by one slash (/).

carinate in *S. apicalis*); and, by the protibiae toothed ventrally (not toothed in *S. apicalis*). The latter species, *S. bolivianus*, belongs to the *S. convexipennis* species group, but it is easily differentiated from *S. robini* by the rostrum much shorter than the elytra (longer in *S. apicalis*), by the smooth pronotum (striolate in *S. apicalis*), and by the glabrous prothorax and elytra (with erect setae in *S. apicalis*).

In the material received from CMNC and FSCA, besides the specimens of *S. robini*, we have found 4 females of another species of *Sicoderus* (2 exs CMNC, 2 exs FSCA), to which it was not possible to associate a male. The latter species also has the eyes separated by a distance equal to 5 diameters of one ommatidium, the elytral striae 10 complete and the body with long erect setae present on prothorax and elytra, differing mainly by the middle area of pronotal disk impunctate, and a slender pronotum and elytra. These females probably belong to an undescribed species of the *S. appendiculatus* group but are not described herein and await association with a male specimen.

The key to species of the *S. appendiculatus* group (Vanin 1986: 571) should be modified as follows to include the new species:

- 3(1) Male ventrite V flattened at middle. . . . . 4  
 - Male ventrite V convex, tumid at apex. . . . . 6  
 6(3) Rostrum of male about 1.1 times as long as elytra. Humeri reduced. Brachypterous, hind wings scale-like. Brazil . . . . .  
 . . . . . *S. apicalis* Vanin  
 - Rostrum of male proportionally longer, 1.20–1.25 times as long as elytra. Humeri rounded, prominent. Macropterous, hind wings fully developed. Bolivia . . . . . *S. robini*, **sp. nov.**

## Acknowledgments

We are very thankful to the following people and institutions: Robin Clarke (Hotel Flora y Fauna, Buena Vista, Bolivia) for his hospitality and dedicated assistance during stay of SAV in Buena Vista; Julieta Ledezma and staff at Noel Kempff Mercado Museum (Santa Cruz de la Sierra, Bolivia) for helping with collecting permits; Dr. Robert S. Anderson and François Génier (Canadian Museum of Nature, Ottawa, Canada) and Dr. Paul Skelley (Florida State Collection of Arthropods, Gainesville FL, USA) for making available for study additional specimens of *Sicoderus* collected in Santa Cruz de La Sierra; Dr. Ricardo Pinto da Rocha (Instituto de Biociências, Universidade de São Paulo) for providing access to his photo equipment (FAPESP 2008/06604-7); and Ricardo Pires Vanin for the electronic treatment of the photographs.

## References

- Alonzo-Zarazaga, M.A. & Lyal, C.H.C. (1999) *A world catalogue of families and genera of Curculionoidea (Insecta: Coleoptera) (Excepting Scolytidae and Platypodidae)*. Entomopraxis, S. C. P. Edition, Barcelona, 315 pp.
- Anderson, R.S. (1998) New species of *Sicoderus* Vanin from the Virgin Islands (Coleoptera: Curculionidae: Curculioninae: Otidocephalini). *Tijdschrift voor Entomologie*, 141, 129–135.
- Bouchard, P., Bousquet, Y., Davies, A.E., Alonso-Zarazaga, M.A., Lawrence, J.F., Lyal, C. H.C., Newton, A.F., Reid, C., Schmitt, M., Slipinski, A. & Smith, A. (2011) Family-group names in Coleoptera (Insecta). *ZooKeys*, 972 (88), 1–972. <http://dx.doi.org/10.3897/zookeys.88.807>
- Lawrence, J.F., Beutel, R.G., Leschen, R.A.B. & Slipinski, A. (2010) Glossary of morphological terms, *In*: Leschen, R.A.B., R.G. Beutel, R.G. & Lawrence, J.F. (Eds.), *Handbook of Zoology, Arthropoda: Insecta, Coleoptera, Beetles (Morphology and Systematics (Elateroidea, Bostrichiformia, Cucujoidea partim))*. Vol. 2, Walter de Gruyter, Berlin, pp. 9–20.
- Vanin, S.A. (1986) Systematics, cladistics analysis, and geographical distribution of the tribe Erodiscini (Coleoptera, Curculionidae, Otidocephalinae). *Revista Brasileira de Entomologia*, 30 (3/4), 427–647.
- Vanin, S.A. (1989) Redescription of *Sicoderus coroni* Vanin, with re-analysis of the relationships among this species, *S. disjunctus* (Olivier) and *S. ciconia* (Gyllenhal) (Coleoptera, Curculionidae, Otidocephalinae). *Revista Brasileira de Entomologia*, 33 (3/4), 483–487.
- Wibmer, G.C. & O'Brien, C.W. (1986) Annotated checklist of the weevils (Curculionidae *sensu lato*) of South America (Coleoptera: Curculionoidea). *Memoirs of the American Entomological Institute*, 39, 1–563.
- Wibmer, G.C. & O'Brien, C.W. (1989) Additions and corrections to annotated checklist of the weevils of North America, Central America, and the West Indies, and of South America. *Southwestern Entomologist*, Supplement 13, 1–49.