Papéis Avulsos de Zoologia

Museu de Zoologia da Universidade de São Paulo

Volume 46(8):73-75, 2006 **www.scielo.br/paz** **ISSN impresso: 0031-1049**
ISSN *on-line:* 1807-0205

A NEW SPECIES OF *DICORDYLUS* LACORDAIRE, 1863 FROM BRAZIL (COLEOPTERA, BELIDAE, PACHYURINAE, AGNESIOTIDINI), WITH A NEW RECORD OF *D. SERRANUS* VANIN 1976 FOR BRAZIL

JOSÉ RICARDO M. MERMUDES[1]

ABSTRACT

A new species of Dicordylus *(Coleoptera, Belidae, Pachyurinae, Agnesiotidini) is described from Brazil.* Dicordylus vanini *sp. nov. differs from the other three known species mainly by the presence of a dorsal, decumbent, reddish-orange pubescence, and by the absence of a rounded spot near the center of each elytron. An updated identification key as well as an illustration of new species are provided.*

KEYWORDS: Agnesiotidini, Belidae, *Dicordylus,* Neotropical, new species, taxonomy.

INTRODUCTION

The genus *Dicordylus* is presently allocated in the tribe Agnesiotidini Zimmerman, 1994. The tribe is characterized by the presence of a longitudinal sulcus, on both sides of the front, near the inner margin of the eye. These sulci could be obliterated by vestiture (Zimmerman, 1994). The other six genera of the tribe Agnesiotidini have distributions restricted to Australia and New Zealand (Alonso-Zarazaga & Lyal, 1999). Marvaldi (2005) corroborated the monophyly of the Agnesiotidini and Belidae, based on larval morphological characters.

The genus *Dicordylus* Lacordaire, 1863 comprises three species: two restricted to Chile and one registered to Brazil (Vanin, 1976). *Dicordylus serranus* Vanin, 1976 occurs in Brazil, from the central part of Minas Gerais to the eastern part of the State of Santa Catarina, and this range is probably related with *Araucaria* distribution (Vanin, *op. cit.*).

Recently, I analyzed two additional specimens material deposited in the Museu Nacional, Universidade Federal do Rio de Janeiro (MNRJ). The first specimen was identified as a female of *Dicordylus serranus* Vanin, 1976 from Passa Quatro, State of Minas Gerais (XII.[19]14, Jaeger leg.). This new specimen fills an important geographical gap between the southernmost record from Santa Catarina and the northern one in Minas Gerais. The second specimen represents a new species for the genus and is herein described. This specimen was collected by A. M. Parko from an unspecified locality in Brazil. Males of both Brazilian species remain unknown. I furnish below a key to the species of *Dicordylus,* modified from Vanin (1976:11) to include the new species.

1. Pronotum with three distinct longitudinal bands of light-colored pubescence. Elytra without tufts of dark, erect setae (Fig. 4 *in* Vanin, 1976) (Chile) ..... *D. marmoratus* (Philippi, 1859)

[1] Departamento de Zoologia, IB, Universidade do Estado do Rio de Janeiro, Rua São Francisco Xavier, 524, Maracanã, CEP 20550-900, Rio de Janeiro, RJ, Brazil. e-mail: jrmermudes@uol.com.br

Pronotum without distinct bands of pubescence. Elytra with sparse tufts of dark and erect setae ... 2

2. Elytra, near the middle of disk, with rounded spot of decumbent pubescence yellowish-white 3
   Elytra without spot (Fig. 1) (Brazil) .... *D. vanini* sp. nov.
3. Integument black. Decumbent setae of elytral spot oriented backwards (Figs. 1 and 2 *in* Vanin, 1976) (Chile) ..... *D. binotatus* (Philippi, 1859)
   Integument reddish-brown. Setae of elytral spot inclined 45° in relation to longitudinal axis of body (Fig. 2) (Brazil: Minas Gerais and Santa Catarina) ..... *D. serranus* Vanin, 1976

Dicordylus vanini sp. nov.

(Fig. 1)

Diagnosis: Dicordylus vanini sp. nov. is distinguished from the other species of the genus by: 1) dorsal vestiture with dense, decumbent, shining, reddish-orange pubescence; 2) elytra, near suture of basal 1/4 with long, decumbent, ferruginous setae, conspicuously denser at the middle of disk; 3) lacking rounded spot on elytra.

Description: Female (10.5 mm). Integument reddish-brown, darker in three last antennal segments. Dorsal vestiture with dense, decumbent, shining, reddish-orange pubescence. Elytra, near suture of basal 1/4 with long, decumbent, ferruginous setae, conspicuously denser at the middle of disk; setae inclined 45° in relation to longitudinal axis of body. Ventral surface of body and legs with sparse, yellowish-white pubescence, denser at sides of the body.

Basal half of rostrum weakly punctuate-corrugate. Front slight convex. Pronotum without longitudinal depression; near the base, slightly impressed at sides of disk. Antennae exceeding the posterior margin of prothorax by apical half of segment IX; scape twice as long as segment II; III and IV subequals in length, three times as long as II; V at least 1/3 shorter than IV; VI-IX subequals, weakly shorter than V; X slightly shorter than XI.

Elytra narrow, about 2.5x as long as wide; flattened in the middle of the disk; basal gibbosities weakly prominent. Dorsum with tufts of black, erect setae: one tuft antemedian; two before apical fourth, one outer with discrete setae; and apical declivity with two discrete tufts. Elytral apex feebly oblique, lacking abrupt declivity.

FIGURE 1. *Dicordylus vanini* sp. nov., female holotype from Brazil; total length = 10.5 mm.

FIGURE 2. *Dicordylus serranus* Vanin, 1976, female from Brazil (Minas Gerais, Passa Quatro); total length = 11 mm.

Holotype: a female from Brazil, without any additional information, collected by A.M. Parko, and deposited in the Museu Nacional, Universidade Federal do Rio de Janeiro (MNRJ).

Measurements of the holotype: total length, 10.5 mm (from vertex to elytral apex); rostrum length, 2.5 mm; prothorax length, 2.5 mm; prothorax width, 2.0 mm; elytral length, 7.0 mm; humeral width, 3.0 mm.

Etymology: This species is named for Dr. Sergio Antonio Vanin (Museu de Zoologia, Universidade de São Paulo), in recognition of his many contributions to weevils taxonomy and for his enthusiastic encouragement of others to contribute to the study of Coleoptera.

RESUMO

Nova espécie de Dicordylus *Lacordaire, 1863 (Coleoptera, Belidae, Pachyurinae, Agnesiotidini).* Dicordylus vanini *sp. nov. do Brasil é descrita e ilustrada. A espécie nova difere das outras três conhecidas de* Dicordylus *principalmente devido à pubescência dorsal decumbente laranja-avermelhada, e pela ausência de uma mácula arredondada próximo ao meio do disco elitral. Uma atualização para a chave de identificação das espécies é fornecida.*

PALAVRAS-CHAVE: Agnesiotidini, Belidae, *Dicordylus,* Neotropical, nova espécie, taxonomia.

ACKNOWLEDGMENTS

I am thankful to Miguel A. Monne (MNRJ) and Eugenio H. Nearns (University of Florida, Gainesville, Florida) for their review of the English. This study was supported by the CNPq (Conselho Nacional de Desenvolvimento Científico e Tecnológico, proc. nº 155671/2006-5).

REFERENCES

Alonso-Zarazaga, M.A. & Lyal, C.H.C. 1999. *A World Catalogue of Families and Genera of Curculionoidea (Insecta: Coleoptera) (Excepting Scolytidae and Platypodidae).* Entomopraxis, Barcelona.

Lacordaire, J.T. 1863. *Histoire Naturelle des Insectes:* genera des Coléoptères. Librairie Encyclopédique de Roset, Paris, Tome 6.

Marvaldi, A.E. 2005. Larval morphology and biology of Oxycorynine weevils, and the higher phylogeny of Belidae (Coleoptera, Curculionoidea). *Zoologica Scripta,* 34:37-48.

Vanin, S.A. 1976. Taxonomic revision of the South American Belidae (Coleoptera). *Arquivos de Zoologia,* 28(1):1-75.

Zimmerman, E.C. 1994. *Australian Weevils (Coleoptera: Curculionoidea). Vol. I. Orthoceri. Anthribidae to Attelabidae. The Primitive Weevils.* CSIRO, East Melbourne.

Recebido em: 18.07.2006
Aceito em: 13.09.2006

CNPq Publicado com o apoio financeiro do Conselho Nacional de Desenvolvimento Científico e Tecnológico

INSTRUCTIONS TO AUTHORS (MAY 2002)

General Information: *Papéis Avulsos de Zoologia* covers primarily the fields of Zoology, publishing original contributions in systematics, paleontology, evolutionary biology, ecology, taxonomy, anatomy, behavior, functional morphology, molecular biology, ontogeny, faunistic studies, and biogeography. *Papéis Avulsos de Zoologia* also encourages submission of theoretical and empirical studies that explore principles and methods of systematics.

Lists and catalogs should be submitted to the Arquivos de Zoologia.

All contributions must follow the International Code of Zoological Nomenclature. Relevant specimens should be properly curated and deposited in a recognized public or private, non-profit institution. Tissue samples should be referred to their voucher specimens and all nucleotide sequence data (aligned as well as unaligned) should be submitted to GenBank (http://www.ncbi.nih.gov/Genbank/) or EMBL (http://www.ebi.ac.uk/).

Peer Review: All submissions to *Papéis Avulsos de Zoologia* are subject to review by at least two referees and the Editor-in-Chief. Three legible copies (including photocopies of original illustrations) and original illustrations must be submitted; all authors will be notified of submission date. Authors may suggest potential reviewers. Communications regarding acceptance or rejection of manuscripts are made through correspondence with the first or corresponding author only. Once a manuscript is accepted providing changes suggested by the referees, the author is requested to return a revised version incorporating those changes (or a detailed explanation of why reviewer's suggestions were not followed) within four weeks upon receiving the communication by the editor. Revised manuscripts must be submitted as both hard copy and electronic file (3.5" disk, Zip Drive, or CD Rom with text in Microsoft Word format). Figures and graphics should be sent separately (".jpg", ".tif", ".xls", ".cdr").

Proofs: Page-proofs with the revised version will be sent to the first or corresponding author. Page-proofs *must be returned to the editor in two weeks, preferentially within 48 hours*. Failure to return the proof promptly may be interpreted as approval with no changes and/or may delay publication. Only necessary corrections in proof will be permitted. Once page proof is sent to the author, further alterations and/or significant additions of text are permitted only at the author's expense or in the form of a brief appendix ("note added in proof").

Submission of Manuscripts: Manuscripts should be sent to the Editor-in-Chief (H. Zaher, Museu de Zoologia da USP, Caixa Postal 42.494, CEP 04218-970, São Paulo, SP, Brasil). Manuscripts are considered on the understanding that they have not been published or will not appear elsewhere in substantially the same or abbreviated form. The criteria for acceptance of articles are: quality and relevance of research, clarity of text, and compliance with the guidelines for manuscript preparation.

Manuscripts should be written preferentially in English, but texts in Portuguese or Spanish will also be considered. Studies with a broad coverage are encouraged to be submitted in English. All manuscripts should include an abstract in Portuguese **and** English regardless of the original language.

Authors are requested to pay attention to the instructions concerning the preparation of the manuscripts. Close adherence to the guidelines will expedite processing of the manuscript, whereas manuscripts deviating from the required form will be returned for revision prior to review.

Manuscript Form: Manuscripts should not exceed 100 pages of double-spaced typescript on 21 by 29.7 cm (A4 format) or 21.5 by 28 cm (letter format) paper, with wide margins. The pages of the manuscript should be numbered consecutively.

The text of articles should be arranged in the following order: Title Page, Abstracts, Body of Text, Literature Cited, Tables, Appendices, and Figure Captions. Each of these sections should begin on a new page. All typescript pages must be double-spaced.

(1) ***Title Page:*** This should include the title, author(s) name(s), institutions, and keywords in English as well as in the language of the manuscript, and a short running title in the language of the manuscript. The title should be concise and, where appropriate, should include mention of families and/or higher taxa. Names of new taxa should not be included in titles.

(2) ***Abstract:*** All papers should have an abstract in English and another in Portuguese, regardless of the original language. The abstract is of great importance as it may be reproduced elsewhere. It should be in a form intelligible if published alone and should summarize the main facts, ideas, and conclusions of the article. Telegraphic abstracts are strongly discouraged. Include all new taxonomic names for referencing purposes. Abbreviations should be avoided. It should not include references. Abstracts should not exceed 350 words.

(3) ***Body of Text:*** The main body of the text should include the following sections: Introduction, Materials and Methods, Results, Discussion, and Acknowledgments at end. Primary headings in the text should be in capital letters and centered; the following text should begin on the next line, indented. Secondary headings should be in capital and lowercase letters and flush left; the following text should begin on the next line, indented. Tertiary headings should be in capital and lower case letters, in italics and indented; the following text should be on the same line and separated from the heading by a hyphen.

(4) ***Literature Cited:*** Citations in the text should be given as: Silva (1998)..., Silva (1998:14-20)..., Silva (1998: figs. 1, 2)..., Silva (1998a, b)..., Silva & Oliveira (1998)..., (Silva, 1998)..., (Rangel, 1890; Silva & Oliveira, 1998a, b; Adams, 2000)..., (Silva, pers. comm.)..., (Silva *et al.*, 1998), the latter when the paper has three or more authors. The reference need not be cited when author and date are given only as authority for a taxonomic name. The literature section should be arranged strictly alphabetically and given in the following format:

Journal Article – Silva, H.R.; Oliveira, H. & Rangel, S. Year. Article title. Journal name, 00:000-000. Names of journals must be spelled out in full.

Books – Silva, H.R. Year. Book title. Publisher, Place.

Articles in Books – Silva, H.R. Year. Article title. In: Oliveira, H. & Rangel, S. (Eds.), Book title. Publisher, Place, p.000-000.

Articles in Larger Works – Silva, H.R. Year. Article title. In: H. Oliveira & S. Rangel (Eds.), Title of Larger Work. Serial Publication. Publisher, Place, p.000-000.

Dissertations and Theses – Silva, H.R. Year. Dissertation title. Ph.D. Dissertation, University, Place.

Eletronic Publications – Silva, H.R. Year. Article title. Available at: http://www.mz.usp.br.

Tables: All tables must be numbered in the same sequence in which they appear in the text. Authors are encouraged to indicate where the tables should be placed in the text. They should be comprehensible without reference to the text. Tables should be formatted with horizontal, not vertical, rules. In the text, tables should be referred as Table 1, Tables 2 and 3, Tables 2-6. Use "TABLE" in the table heading.

Illustrations: Figures should be numbered consecutively, in the same sequence they appear in the text. Separate illustrations of a composite figure should be identified by capital letters and referred in the text as so (fig. 1A). Where possible, letters should be placed in the lower right corner of each illustration of a composite figure. Hand-written lettering on illustrations is unacceptable. Illustrations should be mounted on stout, white cardboard. Figures should be mounted in order to minimize blank areas between separate illustrations. High quality color or black and white photographs, and computer generated figures are preferable. Authors are encouraged to indicate where the figures should be placed in the text. Use "(Fig(s).)" and "Figure(s)" for referring to figures in the text, but "FIGURE(S)" in the figure captions and "(fig(s).)" when referring to figures in another paper.

For other details of manuscript preparation of format, consult the CBE Style Manual, available from the Council of Science Editors (http://www.councilscienceeditors.org/publications/style.cfm).

Papéis Avulsos de Zoologia and Arquivos de Zoologia are publications of the Museu de Zoologia da Universidade de São Paulo (www.mz.usp.br).