

**A NEW SPECIES OF *DAIMOTHORACODES* PETROVITZ
(COLEOPTERA: SCARABAEOIDEA: HYBOSORIDAE) AND A KEY
TO SPECIES OF THE GENUS**

FEDERICO C. OCAMPO AND FERNANDO Z. VAZ-DE-MELLO

(FCO) Systematics Research Collections, W 436 Nebraska Hall, University of Nebraska State Museum, Lincoln, NE 68588-0546, U.S.A. (e-mail: focampo@unlserve.unl.edu); (FZV) Departamento de Entomologia and Departamento de Biologia, Universidade Federal de Lavras, Lavras MG 37200-000 Brazil (e-mail: scarab@ufla.br)

Abstract.—*Daimothoracodes confossus* Ocampo and Vaz-de-Mello, new species, is described from Minas Gerais, Brazil. A key to the three species of the genus is provided in English and Portuguese.

Resumo.—*Daimothoracodes confossus* Ocampo e Vaz-de-Mello, sp. nov., é descrito com base em exemplares de estado de Minas Gerais, Brasil. Uma chave para as três espécies conhecidas do gênero é fornecida, incluindo uma versão em português.

Key Words: Coleoptera, Hybosoridae, *Daimothoracodes*, Brazil, taxonomy

The genus *Daimothoracodes* Petrovitz 1970 was created for one species, *D. mirabilis* Petrovitz 1970. The original description was based on one female specimen from the State of Goiás, Brazil. Martínez (1994) described and illustrated the male genitalia of *D. mirabilis* and recorded the species from the states of Minas Gerais and São Paulo in Brazil and Misiones Province in Argentina. He also described a second species, *D. magnificus* Martínez 1994, from Ichilo Province, Bolivia.

In this paper we describe *Daimothoracodes confossus*, from Minas Gerais State, Brazil. We also provide a key to species of *Daimothoracodes* and diagnostic illustrations.

All known specimens of *Daimothoracodes confossus* were collected at light.

Daimothoracodes Petrovitz 1970

Diagnosis.—This genus is distinguished from other genera of Hybosoridae from the

New World by the following combination of characters: Shape of the pronotum with the base at middle posteriorly produced; elytron elongate, convex, with epipleuron not developed; meso and metatibiae profoundly, laterally flattened.

***Daimothoracodes confossus* Ocampo and Vaz-de-Mello, new species**
(Figs. 1, 2a, b, 7–8)

Type series.—Holotype male labeled “Brasil: MG, Águas Vermelhas, XII-1998. A. Bello & F. Z. Vaz-de-Mello.” Allotype female and 3 paratypes with same data, 5 paratypes with same data except XII-1997, A. Bello. Holotype and allotype deposited at the Museu de Zoologia, Universidade de São Paulo (São Paulo, Brazil); two paratypes at the University of Nebraska State Museum (Lincoln, NE, USA), four paratypes in A. M. Bello personal collection (Rio de Janeiro, Brazil), one paratype in H. F. Howden personal collection (Ottawa,

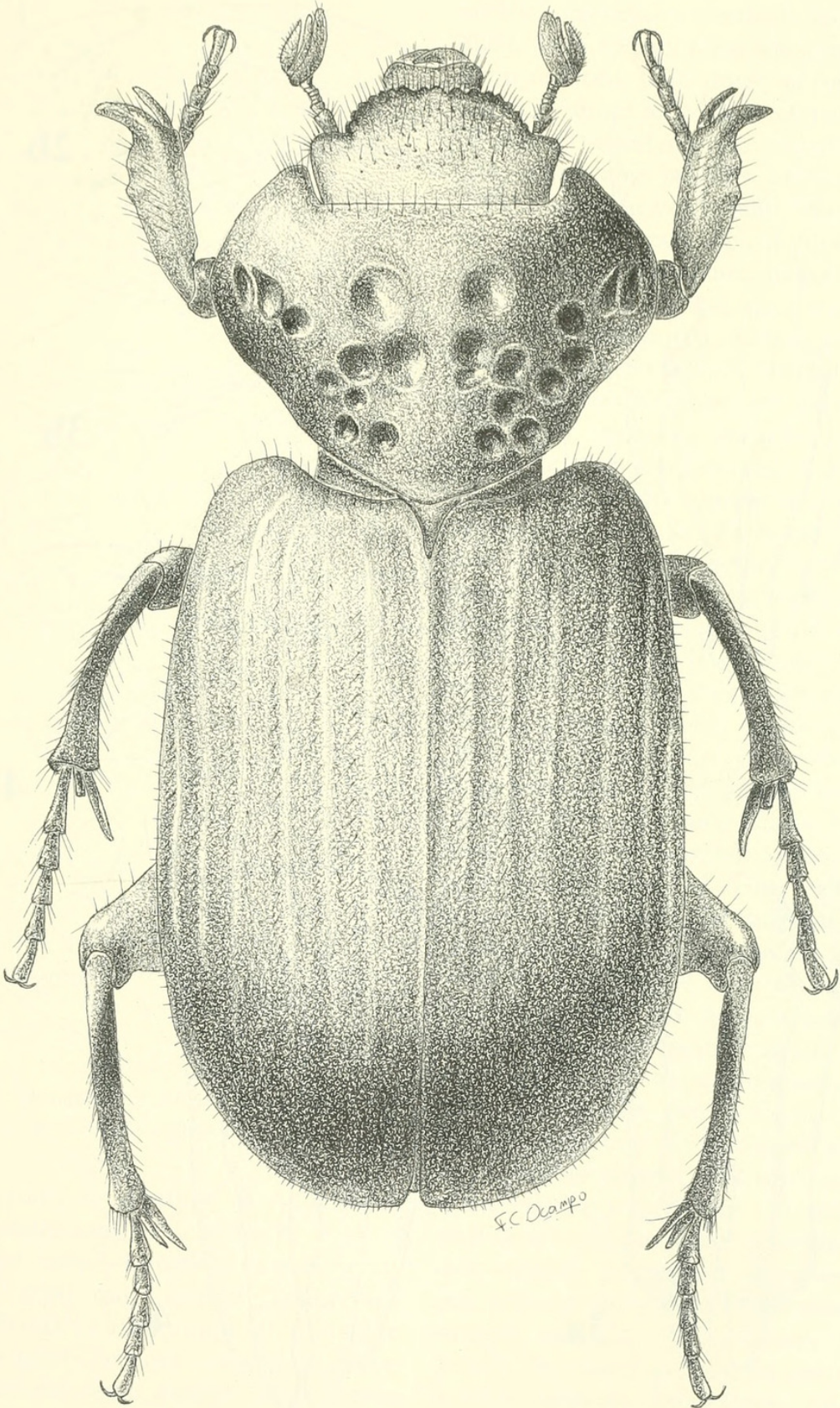
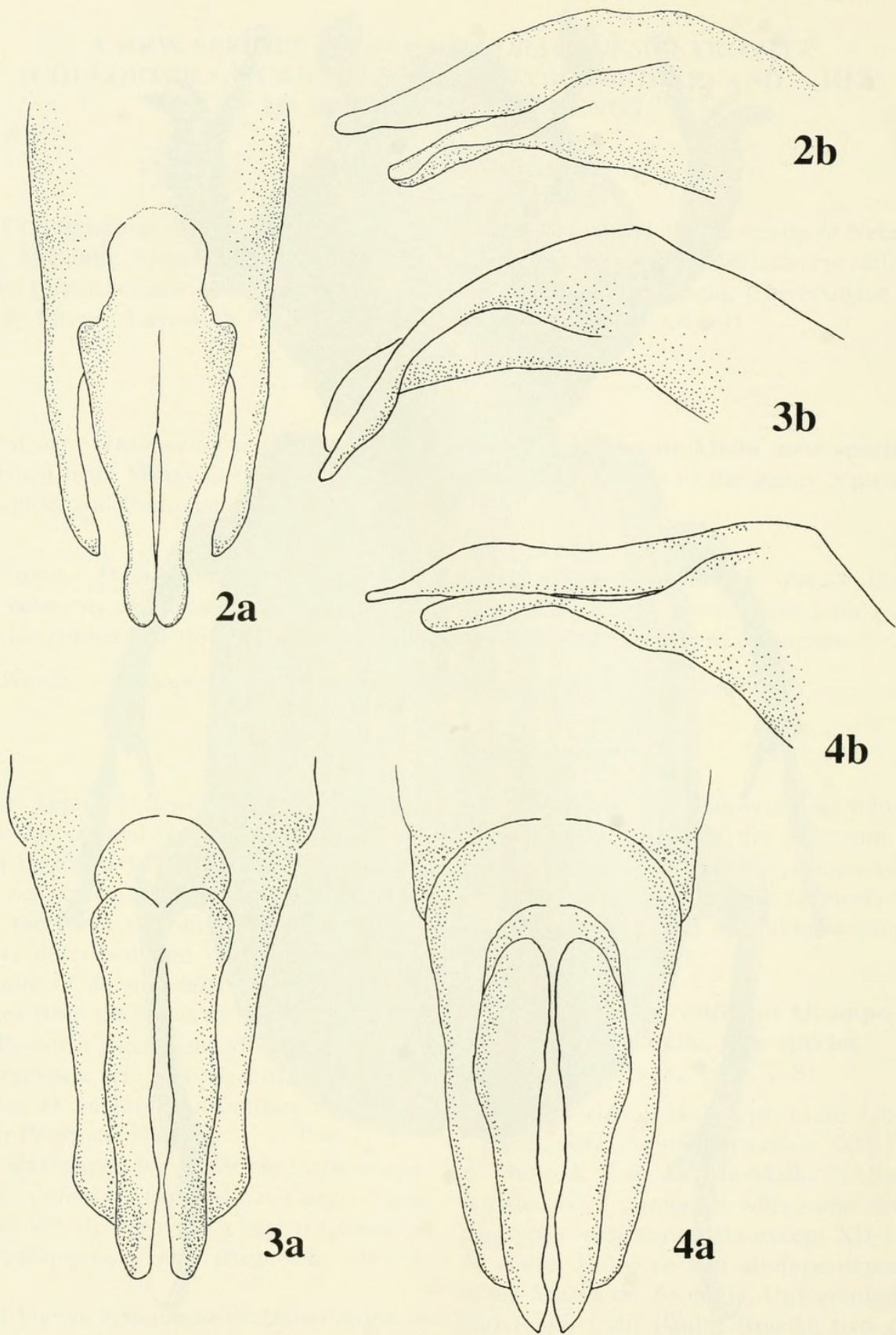
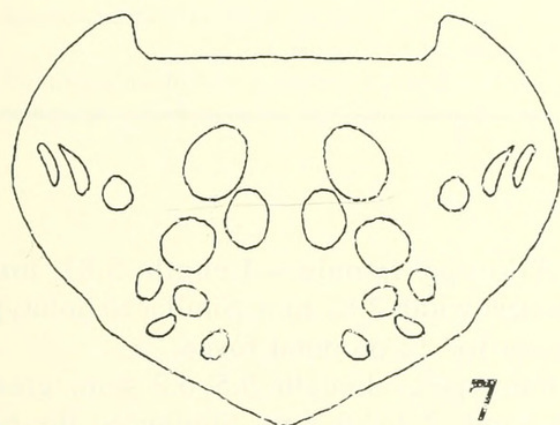
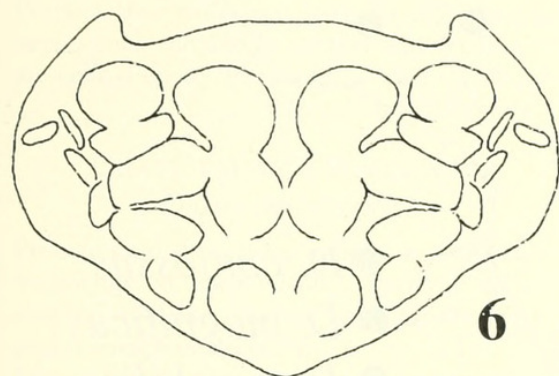
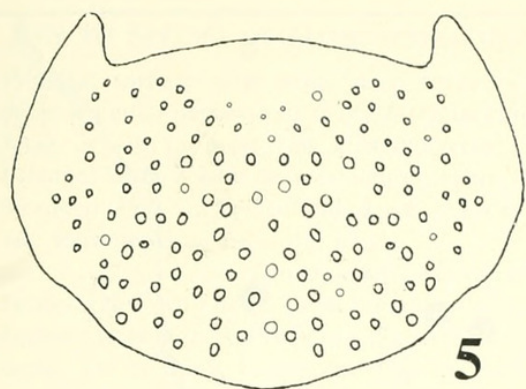


Fig. 1. Habitus of *Daimothoracodes confossus*.



Figs. 2-4. Caudal (a) lateral (b) views of parameres. 2, *Daimothoracodes confossus*. 3, *D. mirabilis*. 4, *D. magnificus*.



Figs. 5-7. Pronotum. 5, *Daimothoracodes magnificus*. 6, *D. mirabilis*. 7, *D. confossus*.

Canada), and one paratype in A. Ballerio personal collection (Brescia, Italy).

Holotype male.—Length 6.14 mm; greatest width 2.90 mm. **Color:** Testaceous. **Head:** Frons subrectangular, surface smooth, slightly rugose toward clypeus, sparsely setose, setae minute. Eye canthus subtriangular. Eyes not visible in dorsal view, totally covered by pronotum when head retracted. Frontoclypeal suture obsolete. Clypeus slightly rugose, sparsely setose; margins rounded, reflexed except in

middle, crenulate; vertical face of apex blunt, with sparse, long, slender setae. Labrum reduced, 0.46 times as long as clypeus, 0.55 times as wide as clypeus, mesally indented; lateral margin rounded. Mandibles protruding beyond labrum, external surface smooth; with small, dorsal, preapical tooth and acute apical tooth. Labium with surface of mentum smooth and with 16 long, slender setae; apex rounded. Antenna 10-segmented; scape subequal in length to segments 2-7, strongly notched, with long slender setae on dorsal surface; segment 2 globose; segments 3-7 wider than long; club 3-segmented, rounded, basal segment slightly cupuliform, partially receiving segment 2. **Pronotum:** Convex, 0.94 times as long as wide, surface smooth between fovea, glabrous; anterior margin straight, right-angled behind eye, with short, sparse setae; lateral margin strongly produced at middle; base (each side of middle) emarginate; base at middle posteriorly produced, subtriangular. Disc with 21 deep, large rounded or oval foveae; foveae variable in shape, size, and depth, but deeper, larger and more rounded on disc. Anterior angle acutely rounded. **Scutellum:** Surface smooth, glabrous, subtriangular. **Elytron:** Elongate, convex, 1.45 times as long as wide; sparsely setose, setae arranged in longitudinal series from base to apex; with 8 poorly developed, carinate striae, and 2 laterad of humerus; striae not reaching elytral apex. Epipleuron not developed. **Venter:** Prosternal surface finely rugose, biconcave; with well-developed keel in middle; prosternal shield with posteriomedial process well-developed, pointed. Mesosternal surface smooth, posteriorly depressed; posterior process spinelike. Metasternal surface smooth, sparsely setose. **Legs:** Procoxa large, 0.66 times as long as profemur, anteriorly globose. Trochanters and femora sparsely setose, setae long. Protibial dorsal surface with longitudinal line of setae at middle and at margin (setae long, sparse); ventral surface with long, sparse setae; with 3 teeth in apical half; apical tooth large, 0.4

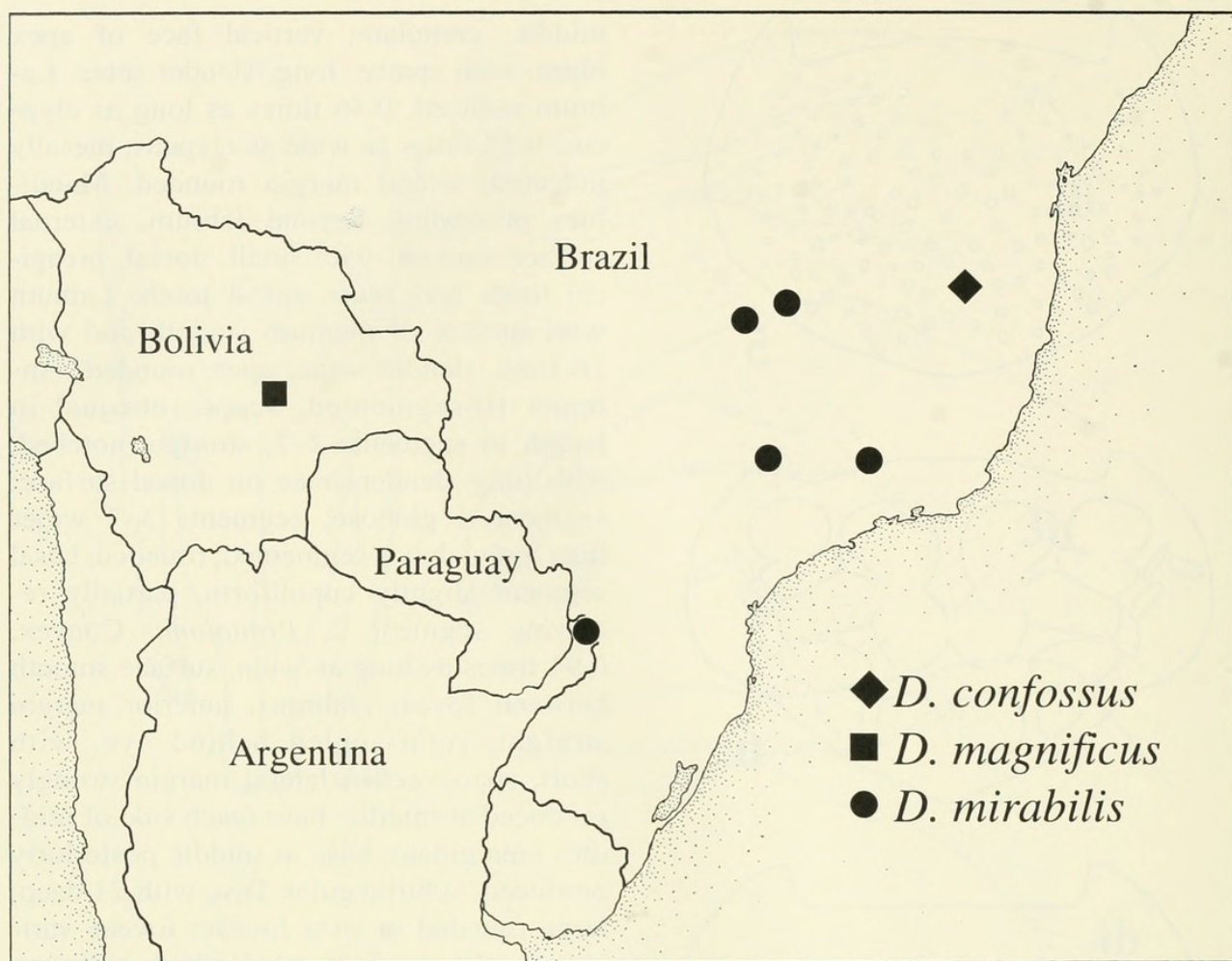


Fig. 8. Distribution of *Daimothoracodes* species.

times as long as tibia, curved; medial and basal teeth reduced, nearly obsolete; spur long, as long as apical tooth, slightly curved, apex rounded. Protarsus with protarsomere 1 as long as 2–4 combined; protarsomere 2–4 subglobose; 5th protarsomere 1.5 times longer than protarsomere 4. Pro-, meso-, and metatarsal claws shorter than tarsomeres 5, simple, curved. Meso- and metatibiae profoundly, laterally flattened, sparsely setose; setae long, slender. Meso- and metatibial medial spurs longer than tarsomere 1; mesotibial external spur reduced, 0.3 times as long as medial spur, apex rounded; metatibial external spurs longer than tarsomere 1. Spurs semicircular in cross section. Meso- and metatarsomeres 1 longer than 2, meso- and metatarsomeres 2–5 subequal in length. *Parameres*: Figs. 2a, b.

Allotype female.—Length 5.81 mm; greatest width 2.82 mm. Similar to holotype except for 22 pronotal fovea.

Paratypes.—Length 5.5–6.2 mm; greatest width 2.7–2.9 mm. Similar to the holotype except 14–25 pronotal fovea.

Etymology.—From the Latin *confossus*, meaning full of holes; in reference to the presence of numerous deep foveae on the pronotal surface.

Distribution (Fig. 8).—This species is known only from the type locality, Águas Vermelhas, Minas Gerais, Brazil.

Recognition.—This species is distinguished from other species in the genus *Daimothoracodes* by the large, deep foveae on the dorsal surface of the pronotum (Figs. 1, 7), the lack of setae on the pronotal surface, and the form of the male parameres (Figs. 2a, b).

KEY TO SPECIES OF *DAIMOTHORACODES*

- 1. Pronotal surface with large, deep foveae or deep, irregular depressions (Figs. 6–7), lacking setae, or with (at most) few scattered setae . . . 2
- Pronotal surface with deep punctures, sparsely arranged (Fig. 5); surface with dense, short setae. Parameres as Figs. 4a, b *D. magnificus* Martínez 1994
- 2. Pronotal disc with deep, large, rounded foveae; foveae variable in number (14–25), shape, and depth, not or rarely coalescent (Fig. 7). Parameres as in Figs. 2a, b *D. confossus* Ocampo and Vaz-de-Mello, n. sp.
- Pronotal disc with deep, irregular depressions, depressions variable in number and depth, coalescent (Fig. 6). Parameres as in Figs. 3a, b *D. mirabilis* Petrovitz 1970

CHAVE PARA AS ESPÉCIES DE
DAIMOTHORACODES

- 1. Pronoto com depressões grandes e profundas, irregulares ou arredondadas; superfície dorsal com no máximo poucas setas espalhadas e pouco conspícuas (Figs. 6–7) 2
- Pronoto apenas pontuado, sem depressões marcadas; superfície pilosa, coriácea (Fig. 5); parâmeros como nas Figs. 4a, b *D. magnificus* Martínez 1994
- 2. Pronoto com fôveas grandes, profundas e arredondadas, em número (14–25), tamanho e

profundidade variáveis, raramente coalescendo (Fig. 7); parâmeros como nas Figs 2a, b *D. confossus*
Ocampo and Vaz-de-Mello, new species

– Pronoto com depressões irregulares e profundas, variáveis em profundidade e número, coalescentes (Fig. 6); parâmeros como nas Figs. 3a, b *D. mirabilis* Petrovitz 1970

ACKNOWLEDGMENTS

We thank Brett Ratcliffe and Mary Liz Jameson (University of Nebraska, Lincoln) for their guidance in preparing the manuscript, and Ayr Bello for encouragement and help collecting the type series of *D. confossus*. This project was supported by an NSF/PEET grant (DEB 9712447) to Brett Ratcliffe and Mary Liz Jameson and by an NSF Biotic Surveys and Inventory grant (DEB 9870202) to Brett Ratcliffe.

LITERATURE CITED

Martínez, A. 1994. Notas sobre Hybosorinae (Coleoptera: Scarabaeidae), II. Elytron 8:223–239.

Petrovitz, R. 1970. Neue neotropische Aphodiinae und Hybosorinae (Col). Entomologische Arbeiten aus dem Museum G. Frey, München 21: 225–243.



Ocampo, Federico C and Vaz-De-Mello, Fernando Z. 2002. "A new species of *Daimothoracodes* Petrovitz (Coleoptera: Scarabaeoidea: Hybosoridae) and a key to species of the genus." *Proceedings of the Entomological Society of Washington* 104, 912–917.

View This Item Online: <https://www.biodiversitylibrary.org/item/54793>

Permalink: <https://www.biodiversitylibrary.org/partpdf/55185>

Holding Institution

Smithsonian Libraries and Archives

Sponsored by

Smithsonian

Copyright & Reuse

Copyright Status: In copyright. Digitized with the permission of the rights holder.

Rights Holder: Entomological Society of Washington

License: <http://creativecommons.org/licenses/by-nc-sa/3.0/>

Rights: <https://biodiversitylibrary.org/permissions>

This document was created from content at the **Biodiversity Heritage Library**, the world's largest open access digital library for biodiversity literature and archives. Visit BHL at <https://www.biodiversitylibrary.org>.