A New Species of the Genus *Diplotaxis* Kirby, 1837 (Coleoptera: Scarabaeidae: Melolonthinae: Diplotaxini) from Northeastern Mexico

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Published By: The Coleopterists Society
DOI: 10.1649/072.065.0221
A NEW SPECIES OF THE GENUS Diplotaxis Kirby, 1837 (COLEOPTERA: SCARABAEIDAE: MELOLONTHINAE: DIPLITAXINI) FROM NORTHEASTERN MEXICO

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ABSTRACT

Diplotaxis riusi Delgado, new species, collected in Nuevo León, Mexico, is described, and the male genitalia are illustrated. The key to the species in the Diplotaxis brevicollis-haydenii species-group is modified to include this new species.

Key Words: taxonomy, key, scarab beetle, Diplotaxis brevicollis-haydenii species-group

RESUMEN

Se describe a Diplotaxis riusi Delgado, especie nueva, colectada en el estado de Nuevo León, México, ilustrando también su genitalia masculino. Se modifica la clave del grupo de especies Diplotaxis brevicollis-haydenii para incluir a la nueva especie.

The New World genus Diplotaxis Kirby, 1837 is the third most speciose of the subfamily Melolonthinae in the New World, and the second most diverse of the tribe Diplotaxini worldwide (Bezdek 2004; Evans and Smith 2009). This genus contains 240 described species distributed from Canada to Panama, and the West Indies. Mexico has the highest diversity, with 183 species, followed by the United States with 108 species (Vaurie 1958, 1960; Delgado 1990; Delgado and Capistrán 1992, 1993; Delgado and Rivera-Cervantes 1992; McCleve 1993; Delgado 2001; Davidson and Davidson 2006; Evans and Smith 2009). The species of this genus are arranged in 38 species-groups, with six unassigned species. The D. brevicollis-haydenii species-group includes 26 species, 21 of which are distributed in the United States and 14 in Mexico (Vaurie 1958).

During study of material of this genus, principally from the Instituto de Biología, UNAM (Mexico City), eight specimens from the state of Nuevo León, Mexico were found. These specimens represent a new species described here and assigned to the D. brevicollis-haydenii species-group. Terminology and taxonomic characters used are those defined by Vaurie (1958, 1960).

Diplotaxis riusi Delgado, new species
(Figs. 1–2)

Type Material. Holotype male and five male paratypes labeled “MÉXICO: Nuevo León, Santiago, Cola de Caballo, 28.iii.1979, J. Figueroa col.”. Two male paratypes labeled “MÉXICO: Nuevo León, Santiago, Potrero Redondo, 28.iii.1979, H. Pérez col.”. The holotype and three paratypes are deposited in the entomological collection of the Instituto de Biología, UNAM (Mexico City). Four paratypes are deposited in the following collections: Instituto de Ecología, A. C. (Veracruz, Mexico), Scott McCleve collection (Douglas, Arizona, USA), and L. Delgado collection (Mexico City, Mexico).

Holotype. Male. Length 12.6 mm; maximum width across elytra 7.4 mm. Body oval, convex. Head, pronotum, venter, and legs shiny black; elytra dull black. Dorsum glabrous. Length of clypeus 2/5 cephalic length; apex of clypeus emarginate between rounded angles, sides oblique; margin moderately reflexed at middle, to sides less reflexed; canthus not prominent; surface of clypeus tumid at lateral third; clypeus densely rugose; reflexed underside of clypeus transversely furrowed. Frontoclypeal suture complete, straight at middle and curved at sides. Front of head transversely tumid behind clypeus, with a middle impression; surface of frons coarse and densely punctate, punctures becoming smaller and sparser to vertex. Transverse eye diameter almost 1/7 as wide as head. Antennae with 10 antennomeres. Labrum distinctly concave longitudinally, frontal margin strongly arcuate, labrum at middle almost 1.5X longer than and distinctly advanced from the reflexed underside of clypeus. Mandibles large, bulbous; last segment of maxillary palp with small, dorsal, basal impression. Mentum
not sunken, concave with transverse declivity posteriorly bounded by a blunt and glabrous edge.

Pronotum much wider than long (1.00:0.53), sides moderately curved, widest slightly behind the middle, base with tiny denticulations at lateral third, anterior angles slightly acute and slightly concave, posterior angles obtuse and almost flat; surface of pronotum with moderately dense punctures of same size as those of frons, punctures sparser at middle. Scutellum with few basal punctures. Elytra longer than wide (1.00:0.74), flat, sparsely punctuate; striae and broad intervals with punctures larger than those of pronotum, costae with minute and scarcely visible punctures, sutural interval with scarce, minute punctures; margins with few small setae at basal third. Abdomen laterally rounded, second and third visi-
tures contrast with the drier forests inhabited by Diplotaxis belfragei Fall and Diplotaxis bakeri Cazier, the two species seemingly most closely related to D. riusi.

Remarks. Diplotaxis riusi differs from D. brevicollis-haydenii species-group because of the following characters: dorsum entirely glabrous; clypeus with anterior angles rounded; reflexed underside of clypeus transversely furrowed; mandibles large and bulbous; labrum prominent and situated in front of the underside of clypeus; eyes small, not reaching the gular region; antennae with 10 antennomeres; protibiae tridentate with the apical inner border cut-out; first mesotarsomere shorter than basal piece and with minute setae on apical and ventral surfaces (Figs. 1–2).

Female. Unknown.
The key to the *D. brevicollis-haydenii* species-group given by Vaurie (1960) is modified as follows to incorporate *D. riusi*:

20. Clypeus feebly emarginate in front and as long as at least one-half length of head; declivity of mentum appearing rather flat, not advanced; Arizona and northwestern Mexico.......................... *D. boops* in part

20′. Clypeus distinctly emarginate and about one-third length of head; declivity of mentum either advanced prominently as a ledge or deeply concave from side to side............. 20a

20a. Clypeus tumid at lateral third; elytra opaque; parameres with minute setae on apical and ventral surfaces; northeastern Mexico..........

.................. *D. riusi, new species*

20a′. Clypeus entirely flat; elytra shiny; parameres glabrous............................... 21

21. Head coarsely punctate; declivity of mentum usually as long as one-half length of mentum; length 10–14 mm; claws toothed either medially or subapically; western United States and northeastern Mexico..................... *D. belfragei*

21′. Head finely, shallowly punctate; declivity of mentum usually no longer than one-third length of mentum; length 8.5–11.0 mm; claws toothed in front of middle; northeastern Mexico.................................. *D. bakeri*

**ACKNOWLEDGMENTS**

I thank Harry Brailovsky and Santiago Zaragoza (Instituto de Biología, UNAM) for the loan and gift of most specimens in the type series. I also thank the helpful comments of two anonymous reviewers.

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(Received 13 March 2011; accepted 20 April 2011. Publication date 20 June 2011.)