

Zeitschrift: Mitteilungen der Schweizerischen Entomologischen Gesellschaft =
Bulletin de la Société Entomologique Suisse = Journal of the Swiss
Entomological Society

Herausgeber: Schweizerische Entomologische Gesellschaft

Band: 74 (2001)

Heft: 1-2

Artikel: A new Mexican species of Diplotaxis Kirby (Coleoptera, Melolonthidae,
Melolonthinae) of the puberula group

Autor: Delgado, Leonardo

DOI: <https://doi.org/10.5169/seals-402803>

Nutzungsbedingungen

Die ETH-Bibliothek ist die Anbieterin der digitalisierten Zeitschriften auf E-Periodica. Sie besitzt keine Urheberrechte an den Zeitschriften und ist nicht verantwortlich für deren Inhalte. Die Rechte liegen in der Regel bei den Herausgebern beziehungsweise den externen Rechteinhabern. Das Veröffentlichen von Bildern in Print- und Online-Publikationen sowie auf Social Media-Kanälen oder Webseiten ist nur mit vorheriger Genehmigung der Rechteinhaber erlaubt. [Mehr erfahren](#)

Conditions d'utilisation

L'ETH Library est le fournisseur des revues numérisées. Elle ne détient aucun droit d'auteur sur les revues et n'est pas responsable de leur contenu. En règle générale, les droits sont détenus par les éditeurs ou les détenteurs de droits externes. La reproduction d'images dans des publications imprimées ou en ligne ainsi que sur des canaux de médias sociaux ou des sites web n'est autorisée qu'avec l'accord préalable des détenteurs des droits. [En savoir plus](#)

Terms of use

The ETH Library is the provider of the digitised journals. It does not own any copyrights to the journals and is not responsible for their content. The rights usually lie with the publishers or the external rights holders. Publishing images in print and online publications, as well as on social media channels or websites, is only permitted with the prior consent of the rights holders. [Find out more](#)

Download PDF: 30.04.2026

ETH-Bibliothek Zürich, E-Periodica, <https://www.e-periodica.ch>

A new Mexican species of *Diplotaxis* KIRBY (Coleoptera, Melolonthidae, Melolonthinae) of the *puberula* group

LEONARDO DELGADO¹

A new Mexican species of *Diplotaxis* from Veracruz State is described and the male genitalia are illustrated. The new species belongs to the *puberula* group and a previous key to the genus *Diplotaxis* is modified to incorporate this new species.

Keywords: Melolonthidae, Melolonthinae, *Diplotaxis*, new species, Mexico.

INTRODUCTION

The American genus *Diplotaxis* KIRBY includes 229 species ranging from Canada to Panama, most of them (179) distributed in Mexico (VAURIE, 1960, 1962; DELGADO & CAPISTRAN, 1993; MCCLEVE, 1993; THOMAS, 1993). The species of this genus are arranged in 38 groups with six unassigned species. The *puberula* group consists of nine species all of them occurring in Mexico, *D. puberula* LECONTE is also distributed in United States, *D. poropyge* BATES extending south to Panama, and *D. hirsuta* VAURIE, *D. puncticollis* MOSER, *D. crinigera* BATES and *D. cavifrons* MOSER also occurring in Guatemala (VAURIE, 1958; DELGADO & CAPISTRAN, 1993).

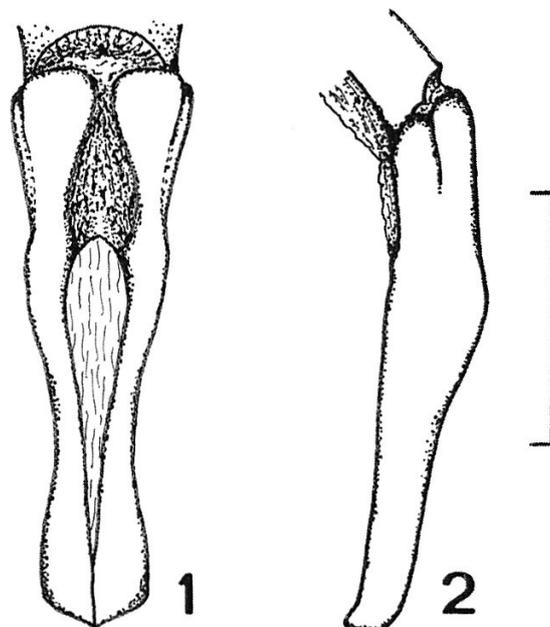
During recent collections at the forests adjacent to the Pico de Orizaba volcano, in the state of Veracruz, Mexico, several specimens of the genus *Diplotaxis* were obtained representing a new species, which is described here and assigned to the *puberula* group.

DESCRIPTION

Diplotaxis monticola sp. n. (Figs 1–2)

Material. Holotype ♂, allotype ♀ and 11 ♂♂ and 17 ♀♀ paratypes: Mexico, Veracruz, Tecoanapa, 1-3-V-1992, Alt. 2400 m, bosque mesófilo, luz mercurial, F. CAPISTRAN y L. DELGADO. Additional two ♂♂ and 12 ♀♀ paratypes same data as the preceding except for: 25-27-VI-1992. Holotype, allotype and three paratypes deposited in the Instituto de Ecología, A.C. (Xalapa, Mexico), paratypes in the following collections: The Natural History Museum (London), Muséum National d'Histoire Naturelle (Paris), Wissenschaftsbereich Zoologie Sektion Biowissenschaften Martin Luther-Universität Halle (Halle), Museum für Naturkunde der Humboldt-Universität zu Berlin (Berlin), Canadian National Collection (Ontario), United States National Museum (Washington), California Academy of Sciences (San Francisco), University of Nebraska State Museum (Lincoln), Universidad del Valle de Guatemala (Guatemala), Instituto de Biología de la Universidad Nacional Autónoma de México (Mexico), Museo de Zoología "Alfonso L. Herrera" de la Universidad Nacional Autónoma de México (Mexico), Centro de Estudios en Zoología de la Universidad de Guadalajara (Jalisco), H. & A. HOWDEN (Ontario), W. B. WARNER (Arizona), S. MCCLEVE (Arizona), J. BLACKALLER (Mexico), A. PEREZ (Mexico) and L. DELGADO (Mexico).

¹ Instituto de Ecología, A. C., Apartado Postal 63, 91000 Xalapa, Veracruz, Mexico.



Figs 1–2. Parameres of male genitalia of *Diplotaxis monticola* sp. n. 1. Frontal view. 2. Lateral view. Scale = 1 mm.

Holotype ♂. Total length 10.7 mm; elytral maximum width 5.2 mm. Body elongate, dorsum entirely setiferous; head and pronotum dark shining brown, elytra sericeous reddish brown. Clypeus trapezoid, nearly with same length as frons, apex moderately emarginate, angles rounded and sides almost straight in front of eyes; clypeal surface a little concave with dense, coarse punctures and erect setae. Frons convex, descending more or less abruptly to clypeus, with punctures smaller and sparser than those of clypeus and longer, semierect setae. Transverse eye diameter equal to 0.21 times the cephalic width. Labrum concave, densely punctated, at level with and 1.5 times longer than the reflexed underside of clypeus at middle; mandibles stout; mentum almost flat, with anterior declivity marked by transverse, setiferous ridge; last article of maxillary palpi not impressed dorsally; antennae 10-segmented.

Pronotum broad, flat, with sides curved nearly at middle, fore and hind angles obtuse, basal margin depressed with a row of ocellate punctures, pronotal surface with moderately dense, semiocellate punctures of same size as those of frons and semierect setae. Scutellum densely punctated. Elytra 4.2 times longer than pronotum (in lateral view); striae and broad intervals with semiocellate punctures of about same size as those of pronotum, costae with much smaller punctures, broad intervals multipunctate; striae and intervals with setae semierect and long but shorter than scutellum. Sides of abdomen with longitudinal chitinous ridge, abdomen ventrally flat; propygidium grooved above pygidium; surface of pygidium irregularly elevated, with moderately dense, ocellate punctures and long setae.

Femora slender; protibiae tridentate, basal tooth placed in distal half and separated from two apical teeth; tarsi much longer than respective tibiae, first article of hind tarsi much longer than longer of two tibial spurs; claws slightly curved and subapically cleft. Parameres of genitalia slightly longer than basal piece, widened to apical third and jointed on inner margin at basal third (Figs. 1–2).

Allotype ♀. Total length 11.0 mm; elytral maximum width 5.4 mm. Like male except for: sericeous tinge of elytra reduced, sides of clypeus slightly indented in front of eyes, frons more convex, declivity of frons more accentuated, transverse eye diameter equal to 0.16 times the cephalic width, pronotal punctation a little sparser, elytra 4.0 times longer than pronotum, punctures of intervals slightly smaller, abdomen ventrally convex, femora shorter and robust, protibiae wider to apex, tarsi shorter, first article of hind tarsi shorter than longer of two tibial spurs and claws angularly bent.

Paratypes (13 ♂♂, 29 ♀♀). – ♂♂: total length 8.9–10.7 mm; elytral maximum width 4.4–5.1 mm. – ♀♀: total length 9.8–11.6 mm; elytral maximum width 4.9–5.7 mm. In both sexes color of frons varies from brown to black and pronotum from brown to reddish brown, clypeus usually straight in front of eyes, density of pronotal punctures slightly varies, elytra vary from 4.0 to 4.4 times longer than pronotum and punctures of elytra on broad intervals vary a little in size and density. In addition, females present elytra with reduced sericeous tinge, eyes somewhat smaller abdomen ventrally convex, femora shorter and robust, protibiae wider to apex, tarsi shorter, first article of hind tarsi shorter than longer of two tibial spurs and claws angularly bent.

Comments. Because *D. monticola* presents dorsal pubescence setose, clypeus trapezoid with angles rounded, labrum at level with and at least as long as underside of clypeus, maxillary palpi with last segment not impressed dorsally, antennae 10-jointed, scutellum, elytral costae and pygidium more or less densely punctated, protibia tridentate and tarsi without pads, it is included in the *puberula* group. However, *D. monticola* differs from all species of this group in having the setae of pronotum and elytra semierect (not erect), the sides of clypeus usually straight in front of eyes (not indented), the elytral costae with punctures much smaller than those of the broad intervals (not of about same size), the hind tarsi much longer than hind tibiae (not shorter or scarcely longer) and the males with the femora slender (not robust), the first article of hind tarsi much longer than longer of two tibial spurs (not of same length or slightly longer) and the claws slightly curved (not angularly bent).

The key to the species and species groups of *Diplotaxis* proposed by VAURIE (1960) is modified as follows to incorporate *D. monticola*:

- | | | |
|------|---|-------------------------|
| 111 | Elytra with strial punctures virtually bare of setae (at least not visible at 14X power) and pronotum with setae visible only in profile view | <i>poropyge</i> BATES |
| – | Elytra with all punctures (striae and intervals) distinctly setose (setae short or long), if strial punctures worn bare, then pronotum with setae distinctly visible in dorsal view | 112 |
| 112 | Front of head abruptly and deeply excavate | <i>cavifrons</i> MOSER |
| – | Front of head convex or gently concave | 112a |
| 112a | Pronotum and elytra with erect setae; labrum of same length as the reflexed underside of clypeus | <i>crinigera</i> BATES |
| – | Pronotum and elytra with semierect setae; labrum longer than the reflexed underside of clypeus | <i>monticola</i> sp. n. |

Etymology. The Latin word “monticola” means inhabitant of the mountain, in relation to the distribution of *Diplotaxis monticola* in the mountains adjacent to the Pico de Orizaba volcano.

ACKNOWLEDGEMENTS

Thanks are offered to Fabricio CAPISTRAN for assistance in collecting.

REFERENCES

- DELGADO, L. & CAPISTRAN, F. 1993. Two new species of *Diplotaxis* (Coleoptera, Melolonthidae, Melolonthinae) from Biosphere Reserve of El Cielo, Mexico. *Revta bras. Ent.* 37(2): 267–272.
- MCCLEVE, S. 1993. Three new species of flightless *Diplotaxis* from Oaxaca, Mexico (Coleoptera: Scarabaeidae: Melolonthinae). *Coleopta Bull.* 47(1): 43–50.
- THOMAS, D.B. 1993. Scarabaeidae (Coleoptera) of the Chiapanecan forests: a faunal survey and chorographic analysis. *Coleopta Bull.* 47(4): 363–408.
- VAURIE, P. 1958. A revision of the genus *Diplotaxis* (Coleoptera: Scarabaeidae, Melolonthinae). Part 1. *Bull. Am. Mus. Nat. Hist.* 115(5): 267–396.
- VAURIE, P. 1960. A revision of the genus *Diplotaxis* (Coleoptera: Scarabaeidae, Melolonthinae). Part 2. *Bull. Amer. Mus. Nat. Hist.* 120(2): 161–434.
- VAURIE, P. 1962. New synonymy for *Diplotaxis ebenina* from Martinique and new distribution records for *Diplotaxis* (Coleoptera: Scarabaeidae: Melolonthinae). *Coleopta Bull.* 16(4): 97–98.

(received August 22, 2000; accepted December 21, 2000)