

***Calomicrus doramasensis* n. sp., a new leaf-beetle
from the Canary Islands
(Coleoptera, Chrysomelidae, Galerucinae)**

JOSÉ MIGUEL VELA* & RAFAEL GARCÍA BECERRA**

* *Coronel Osuna, 18, 4-E. 29006 Málaga. Spain.*

** *San Miguel, 9. 38700 Santa Cruz de la Palma. Tenerife. Spain.*

VELA, J. M. & R. GARCÍA BECERRA. *Calomicrus doramasensis*, un nuevo crisomélido de las islas Canarias (Coleoptera, Chrysomelinae, Galerucinae). *VIERAEA* 25: 147-152.

RESUMEN: Se describe una nueva especie del género *Calomicrus* (Col. Chrysomelidae) de la isla de Gran Canaria (Islas Canarias). Se trata de la primera especie bicolor (pronoto amarillo-rojizo, élitros negros o marrón oscuros) descrita de las Islas Canarias. Se compara esta especie con otras relacionadas.

Palabras clave: Chrysomelidae, Galerucinae, *Calomicrus*, nueva especie, Islas Canarias.

ABSTRACT: A new, bicolour species of *Calomicrus* (Col., Chrysomelidae) with light pronotum and dark elytra is described from Gran Canaria (Canary Islands). Some comparative remarks are made.

Key words: Chrysomelidae, Galerucinae, *Calomicrus*, new species, Canary Islands.

INTRODUCTION

Two species and one subspecies of the genus *Calomicrus* Dillwyn, 1829 have been previously described from the Canary Islands. *C. wollastoni* Paiva, 1861 was described from Tenerife, La Palma and Hierro (Paiva, 1861: 211); later was also recorded from Gomera (Wollaston, 1865: 361) and, more recently, from Gran Canaria (Israelson *et al.*, 1982: 130). *C. bispiniger* s. str. was described from La Palma by Israelson (1968: 161) and *C. bispiniger longicornis* was described by Israelson (1980: 195) from Gomera.

In this paper a third species of *Calomicrus* from the Canary Islands is described.

***Calomicrus doramasensis* n.sp.**

Diagnosis: With the generic features of *Calomicrus* Dillwyn, 1829 (see Vela & Bastazo, 1991). Easily recognizable from other Palaearctic species of this genus by its colouration: head, elytra and legs dark brown to black, pronotum yellowish-red.

Description

Length: ♂: 3,0 - 3,4 mm; ♀: 3,3 - 4,1 mm.

Colouration: Pronotum, prothoracic hypomera and antennomeres I, II, III yellowish-red. Legs from black to dark brown. Tarsomeres III brown. Mandibles and labrum brown. The other parts of the body are black but in immature specimens they are lighter.

Body elongated, slender; its length is 2,12 - 2,34 (♂), 1,85 - 2,24 (♀) times its maximum width.

Head as wide as the width of the apical part of pronotum. Cephalic width 1,67 - 1,81 (♂), 1,62 - 1,68 (♀) times the interocular width. Interantennal width 0,25 - 0,30 (♂), 0,32 - 0,35 (♀) times the interocular width. Head glabrous, fairly microreticulated. Vertex convex. Suprantennal calli well marked; they join downwards in a conspicuous nasal keel that beneath is widened to reach all the width of epistoma. Vertex and frons separated by a deep groove, that in the middle became a hole. Interantennal width 0,57 - 0,77 (♂), 0,79 - 0,92 (♀) times the length of antennomere I. The length ratio of the antennomeres is: 14-6-7-14-14-12-13-13-12-12-14 (♂) and 13-6-6-12-12-11-12-11-11-10-13 (♀). The length of antennae is 0,92 - 1,04 (♂), 0,80 - 0,83 (♀) times the length of the body.

Pronotum transverse (fig.1), with one slight depression on each side; its maximum width, that is at the 1/3 anterior, is 1,43 - 1,47 (♂), 1,40 - 1,46 (♀) times its length and 1,15 - 1,23 (♂), 1,18 - 1,29 (♀) times the cephalic width. Pronotum shiny, fairly punctuated, with one long seta in the anterior and in the posterior setigerous pore; the rest of the pronotum is glabrous. Pronotum margined; side margins well visible; posterior margin visible but in the middle it becomes faint; anterior margin almost imperceptible.

Scutellum small, scarcely punctate and with a smooth apex.

Elytra as long as 1,45 - 1,67 (♂), 1,26 - 1,53 (♀) times the maximum width of the body and 1,88 - 2,13 (♂), 2,04 - 2,19 (♀) times the pronotal length. Humeral calli well developed, isolated by a little depression in its inner part. Elytral puncturation dense and moderately marked; the distance among punctures is similar to the radius of a puncture. Elytra shining, with yellow erected hairs in the distal portion.

Protarsomere I wider in males than in females (fig. 2). The ratio length:width of protarsomere I is 1,75 - 2,50 (♂), 2,33- 3,20 (♀); ídem II is 1,57 - 2,20 (♂), 1,43 - 1,50 (♀); ídem III is 0,78 - 0,89 (♂, ♀); ídem IV is 3,67 - 4,67 (♂), 2,75 - 3,50 (♀). The length of protarsomere I is 0,72 - 0,89 (♂), 0,82 - 1,00 (♀) times the length of protarsomeres II + III. Length of metatibia 0,69 - 0,89 (♂), 0,79 - 0,85 (♀) times the length of the metatarsus. Length of metatarsomere I (fig. 3) 2,50 - 3,10 (♂), 2,67 - 3,22 (♀) times the length of metatarsomere II and 1,00 - 1,07 (♂), 1,03 - 1,12 (♀) times the length of the rest of metatarsus. In the inner part of the apex of each tibia there is one yellow spur of the same length that the surrounding setae; these spurs break loose easily.

♂: Anal sternite: fig.4. *Aedeagus*: fig.5. Tegmen: fig.6. *Spiculum gastrale*: fig.7.

♀: *spermatheca*: fig.8. *Stylus*: fig.9. *Spiculum ventrale*: fig.10.

Morphometrical data: some relevant measurements are shown in Table I.

Typical series: Holotype ♂: Islas Canarias, Gran Canaria, Moya, Barranco Oscuro (UTM 28RDS4204), 10.04.1989, R. García Becerra leg. Paratypes: 11 ♂♂, 9 ♀♀,

same data as holotype. The holotype is deposited in the Department of Zoology, University of La Laguna (Tenerife). Paratypes are deposited in col. García Becerra (La Palma), col. Bastazo & Vela (Málaga), col. Beenen (Nieuwegein), col. Petitpierre (Palma de Mallorca), col. Siede (Hamburg), col. Warchalowski (Wroclaw), Museum of Natural Sciences (Santa Cruz de Tenerife) and National Museum of Natural Sciences (Madrid).

Ecology: *Calomicrus doramasensis n.sp.* was collected on a Rosaceae from genus *Bencomia*, probably *B. caudata* (Ait.) Webb & Berth.; this plant is endemic on the Canary Islands and Madera, and grows in the relict rupicolous scrub communities in sunny situations in the high level laurel forest (Suárez Rodríguez, 1994)

Etymology: the new chrysomelid is named after the ancient forest of Doramas, in recent time almost completely destroyed, where it has been found.

Comparative remarks

The colouration of *C.doramasensis n.sp.* resembles the other bicolour species with yellow or red pronotum and black or dark blue elytra. They can easily be separated by the following characters:

1(4) Metatarsomere I shorter than the rest of the metatarsus. Antennomere IV shorter than antennomeres II and III together. Species from Europe.

2(3) Head yellowish-brown. Species from Central and Western Alps
..... *C. gularis* (Gredler, 1857)

3(2) Head dark brown to black. Species from great part of continental Europe, from Northern Spain to Scandinavia (not yet known from Denmark and Norway)
..... *C. pinicola* (Duftshmid, 1825)

4(1) Metatarsomere I equal or longer than the rest of metatarsus. Antennomere IV not shorter than antennomeres II and III together. Species from Maghreb and Macaronesia.

5(8) Head and legs yellowish-brown.

6(7) Smaller (2,9-3,6 mm). Vertex smooth, without conspicuous punctures, a little obscured. Elytrae dense but superficially puncturated. Species from Algeria
..... *C. quercus* (Pic, 1895)

7(6) Greater (3,4-4,5 mm). Vertex with regular and conspicuous punctures, darker than the rest of head. Elytrae with dense and deep puncturation. Species from Morocco ..
..... *C. moralesi* (Codina, 1963)

8(5) Head and legs dark brown to black. Species from Canary Islands
..... *C. doramasensis n.sp.*

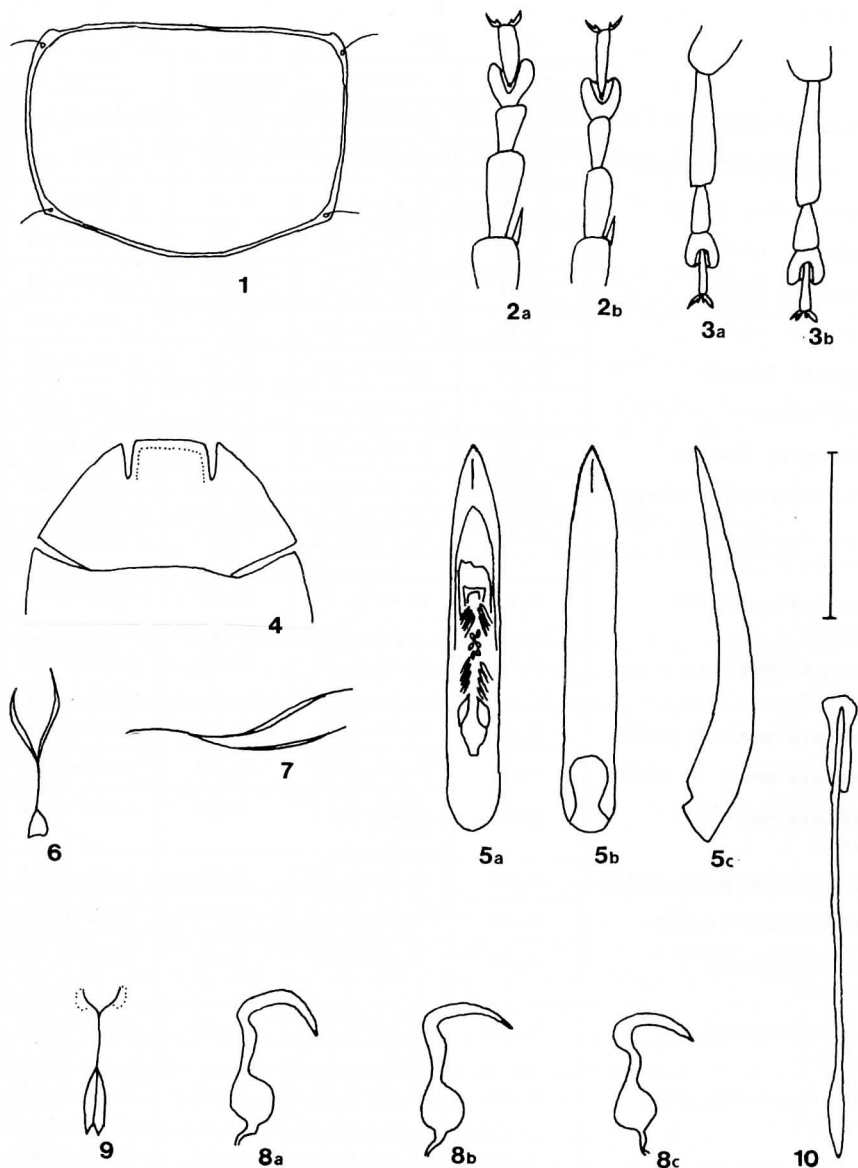
Nevertheless, the new species is related to the other Canarian endemic *Calomicrus* such as *C. wollastoni* Paiva 1861 and *C. bispiniger* Israelson 1968 (including its subspecies *longicornis* Israelson 1980) by the form of the aedeagus and by the very developed sclerites of the internal sac of the aedeagus; see for comparison the figures of the aedeagus of *C. wollastoni* and *C. bispiniger s. str.* offered by Israelson (1968: 162) and of *C. bispiniger longicornis* by Israelson (1980: 209). *C.doramasensis n. sp.* is very different from all these species by its particular colouration and by its different aedeagus and spermatheca.

ACKNOWLEDGMENTS

We are indebted to Dr. Serge Doguet (Fontenay sous Bois) for his kindness in the loan of specimens of *C. quercus* from Algeria and to R.W. John Read (Cumbria) for his help in the improvement of our English expression.

LITERATURE

- ISRAELSON, G. 1968. A new species of *Luperus* from the Canary Islands (Col. Chrysomelidae). *Eos*, Madrid, 44: 159-164.
- ISRAELSON, G. 1980. Taxonomical and nomenclatural notes on some Canarian coleoptera. *Vieraea*, Santa Cruz de Tenerife, 9 (1-2): 183-210 (1979).
- ISRAELSON, G., A. MACHADO, P. OROMI & T. PALM. 1982. Novedades para la fauna coleopterológica de las Islas Canarias. *Vieraea*, Santa Cruz de Tenerife, 11 (1-2): 109-134 (1981).
- PAIVA, B.C. 1861. Descriptions of two new species of Coleoptera from the Canary Islands. *Ann.Mag.Nat.Hist.*, 8 (3 ser.): 210-211.
- SUAREZ RODRIGUEZ, C. 1994. *Estudio de los relictos actuales del monte verde en Gran Canaria*. Ed. Cabildo Insular de Gran Canaria, 617 pp.
- VELA, J.M. & G. BASTAZO. 1991. Morphological and genital patterns distinguishing *Luperus* Geoffroy, 1762 and *Calomicrus* Dilwyn, 1829 (Col. Chrysomelidae). *Eos*, Madrid, 66(2): 187-200 (1990).
- WOLLASTON, T.V. 1865. *Coleoptera Atlantidum, being an enumeration of the Coleopterous insects of the Madeiras, Salvages and Canarias*. Taylor & Francis, London, 526 pp. (*Chrysomelidae*: 352-376).



Figs. 1-10. *Calomicrus doramasensis* n. sp.. 1: pronotum of male (EL = 2,34). 2: protarsomeres male (EL = 2,34) (a) and female (EL = 2,50) (b). 3: metatarsomeres male (EL = 2,34) (a) and female (EL = 2,50) (b). 4: Anal sternite of male (EL = 2,39). 5: *Aedeagus* in dorsal (showing, by transparency, the sclerites of the internal sac) (a), ventral (b) and side (c) view (EL = 2,34). 6: tegmen (EL = 2,39). 7: *Spiculum gastrale* (EL = 2,39). 8: *Spermathecae* of three specimens: a (EL = 2,50), b (EL = 2,45), c (EL = 2,32). 9: *Stylus* (EL = 2,50). 10: *Spiculum ventrale* (EL = 2,50). (Scale = 0,50 mm. EL = elytral length).

	♂♂ n=5		♀♀ n=5	
	average	range	average	range
Antennal length	3,18	2,76-3,54	2,98	2,76-3,34
Interantennal width	0,13	0,11-0,14	0,16	0,14-0,17
Interocular width	0,45	0,42-0,46	0,47	0,43-0,50
Cephalic width	0,78	0,73-0,81	0,78	0,73-0,84
Pronotal length	0,64	0,60-0,71	0,67	0,63-0,74
Pronotal width	0,92	0,85-0,98	0,97	0,88-1,08
Elytral length	2,31	1,97-2,51	2,49	2,27-2,80
Body width	1,45	1,36-1,55	1,72	1,65-1,82
Protarsal length	0,49	0,41-0,52	0,48	0,45-0,50
Protarsomere I length	0,21	0,18-0,24	0,21	0,20-0,22
Protarsomere II length	0,15	0,14-0,17	0,13	0,13-0,14
Protarsomere III length	0,10	0,10-0,11	0,10	0,10-0,11
Protarsomere IV length	0,18	0,15-0,20	0,18	0,15-0,20
Protarsomere I width	0,10	0,08-0,11	0,07	0,07-0,08
Protarsomere II width	0,08	0,07-0,10	0,09	0,08-0,10
Protarsomere III width	0,12	0,11-0,13	0,13	0,12-0,14
Protarsomere IV width	0,04	0,04-0,05	0,04	0,04-0,04
Metatibial length	0,69	0,63-0,70	0,67	0,61-0,71
Metatarsomere I length	0,45	0,42-0,47	0,43	0,39-0,49
Metatarsomere II length	0,16	0,14-0,18	0,14	0,13-0,17
Metatarsomere III length	0,10	0,10-0,11	0,10	0,10-0,11
Metatarsomere IV length	0,19	0,17-0,21	0,18	0,17-0,20
Metatarsomeres II+III+IV length	0,43	0,41-0,45	0,38	0,35-0,41

Table I. Morphometrical data of *Calomicrus doramasensis* n. sp. (in mm).