

A NEW SPECIES OF *ZENORIA* MULSANT FROM BRAZIL (COLEOPTERA: COCCINELLIDAE)

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Abstract.—*Zenoria roberti*, new species from Brazil, is described and illustrated. This new taxon and five more (Gordon, 1972) are integrated into the existing key to species.

Gordon (1971) revised *Zenoria* and provided a key to the 25 included species. In 1972, he added five more species to the genus and indicated where they belonged in the key. Gordon (1978) included a color variant of one species and in 1981 synonymized another. In the present paper, the newest member of the genus is described and illustrated, and the key published by Gordon (1971) is expanded to include all known species. I am indebted to Dra. Vanda Helena Paes Bueno, ESAL/DFS who sent me the specimens collected in Lavras, Minas Gerais, Brazil. This species is named for Robert D. Gordon, the principal specialist on Coccinellidae.

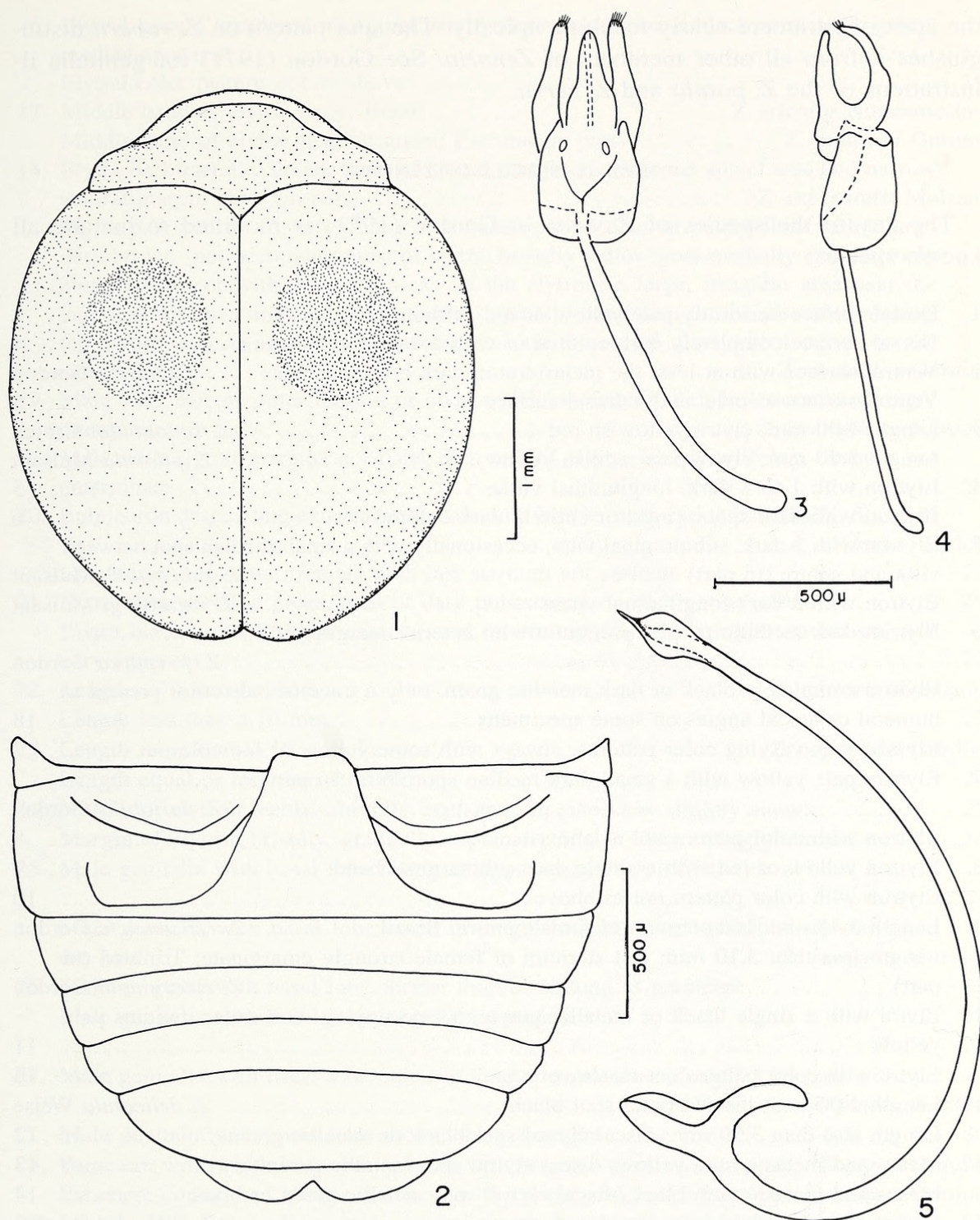
Zenoria roberti, new species (Figs. 1-5)

Holotype Male: Length 3.78 mm, width 3.23 mm. Form round, slightly elongate. Color predominantly black, covered with grayish white semidecumbent pubescence, average length of hairs 0.10 mm; anterior margin of pronotum, head and mouth parts, legs and abdomen pale yellow. Pronotum with punctures fine, separated by 1 to 4 times their diameter. Elytron with coarse punctures deep, separated by their diameter or less, each elytron with round discal spot, composed of black hairs (Fig. 1); margin of elytron explanate, feebly sinuate in lateral view; epipleuron horizontal, with inner carina reaching outer margin. Abdomen with postcoxal lines incomplete, extending downward nearly to hind margin of 1st sternum (Fig. 2). Genitalia with basal lobe shorter than paramere, broad at base, abruptly narrowing at basal third; sides parallel to rounded apex (Figs. 3, 4); paramere strongly curved downward, siphon sinuate before apex, tip acuminate (Fig. 5).

Female: Similar to male, except abdomen with the last sternum not emarginate and in sexual characters.

Variation: Length 3.50 to 4.00 mm; width 2.92 to 3.50 mm. Black pronotal area of male may be expanded nearly to lateral margin and head may have a black spot in the middle.

Type Material: Holotype male, Lavras, Minas Gerais, Brasil; IV-1993, Zacarias, M.S.col., Departamento de Zoologia, Universidade Federal do Paraná (DZUP). Paratypes, same data as holotype: 2 males, 3 females, United States National Museum of Natural History (USNM); 2 males, 4 females (DZUP); 1 male, Museu de Zoologia



Figs. 1–5. *Zenoria roberti* n.sp. Male. 1. habitus. 2. abdomen. 3. genitalia (ventral view). 4. genitalia (lateral view). 5. siphon.

da Universidade de São Paulo (MZSP); 1 female, S. Caraça (Engenho) 800 m, Minas Gerais, Brasil, XI-1961, Kloss, Lenko, Martins & Silva col. (MZSP).

Remarks: This species and *Z. patula* and *Z. serva* have similar genitalia: *Z. serva* and *Z. roberti* have the basal lobe shorter than parameres, but *roberti* has the paramere narrow at base; *Z. patula* has the basal lobe equal in length of paramere and

the apex of paramere nearly touching apically. The spot pattern on *Z. roberti* distinguishes it from all other members of *Zenoria*. See Gordon (1971) for genitalia illustrations of the *Z. patula* and *Z. serva*.

KEY TO SPECIES OF ZENORIA

The key to the species of *ZENORIA* in Gordon (1971) is modified to include all known species.

1. Dorsal surface uniformly pale yellow or red, without markings 2
Dorsal surface completely dark colored or with a dark color pattern 4
2. Ventral surface with at least the metasternum dark brown piceous *Z. pallida* Gordon
Ventral surface as pale as the dorsal surface 3
3. Length 4.00 mm; elytra yellowish red *Z. rodoloides* Crotch
Length 3.40 mm; elytra pale reddish yellow *Z. pilosula* Mulsant
4. Elytron with 1 to 3 dark, longitudinal vittae 5
Elytron with dark spots, rings, or entirely dark colored 6
5. Elytron with 1 dark, submarginal vitta, occasionally with a small median spot between vitta and suture (in part) *Z. subcostalis* Mulsant
Elytron with 3 dark longitudinal vittae *Z. ratzeburgi* Mulsant
6. Elytron dark metallic purple; pronotum with anterior margin yellow
..... *Z. purpurea* Gordon
Elytron completely black or dark metallic green, only a trace of pale color present at humeral or apical angles on some specimens 18
Elytron with varying color patterns, always with some yellow or red color 7
7. Elytron pale yellow with a small dark median spot; Peru (in part)
..... *Z. variabilis* Gordon
Elytron with color pattern not as above 8
8. Elytron yellow or red with a single dark submarginal band. 9
Elytron with color pattern not as above 10
9. Length 3.45 mm; last sternum of female entire; Brazil *Z. circumcicta* Gordon
Length less than 3.10 mm; last sternum of female strongly emarginate; Trinidad (in part) *Z. emarginata* Gordon
10. Elytra with a single black or metallic green spot occupying disc, outer margins pale yellow 11
Elytra with color pattern not as above 16
11. Length 4.00 mm; discal elytral spot black *Z. delicatula* Weise
Length less than 3.50 mm; discal elytral spot black or metallic green 12
12. Meso- and metasternum yellow; discal elytral spot metallic green 13
Meso- and metasternum black, discal elytral spot metallic green or black 14
13. Length less than 3.10 mm; Panama (in part) *Z. schwarzi* Gordon
Length more than 3.35 mm; Brazil *Z. annularis* Gordon
14. Discal elytral spot large, leaving only a narrow yellow ring around lateral border of elytra; Trinidad *Z. emarginata* Gordon
Discal elytral spot small, leaving $\frac{1}{3}$ or more of each elytron yellow; not known from Trinidad 15
15. Discal elytral spot black; male genitalia with basal lobe as long as paramere, a small tooth at apex of paramere; Peru, Bolivia *Z. discoidalis* (Kirsch)
Discal elytral spot usually metallic green; male genitalia with basal lobe shorter than paramere, paramere with a tooth on inner margin before apex; Brazil *Z. crotchii* Gordon

16. Elytral pattern tricolored, marginal band yellow, middle band black or metallic green, median spot red 17
- Elytral color pattern not as above 19
17. Middle band of elytra black; Brazil *Z. tricolor* Nunenmacher
- Middle band of elytra metallic green; Panama (in part) *Z. schwarzi* Gordon
18. Elytra dark metallic green, most of lateral margin and a broad apical area and narrow sutural margin paler (in part) *Z. subcostalis* Mulsant
- Elytra pale yellow or with a black triangular spot on disc, or pale yellow with a large dark brown spot occupying most of elytra, broadly yellow post-medially and narrowly along suture, or with 3 brown areas on the elytron: a large, irregular area near the lateral border just anterior to the middle, a small, round area on the disc not touching the suture, and an irregular, transverse area on the apical third with touches on the suture; Peru *Z. variabilis* Gordon
19. Male with narrow outer margin or elytron yellow; female with last sternum strongly emarginate (in part) *Z. emarginata* Gordon
- Male with elytral margins not paler than rest of elytra; female with last sternum not emarginate 20
20. Epipleuron descending externally; female with last sternum carinate medially; Surinam *Z. carinata* Gordon
- Epipleuron horizontal; female with last sternum not carinate 21
21. Elytra dark metallic green, area of dark pubescence on disk not apparent 29
- Elytra black, with dark pubescence spot on each elytron or dark pubescence on disk very apparent 22
22. Length 4.70 mm or more *Z. stellaris* (Gorham)
- Length less than 4.70 mm 23
23. Length more than 4.10 mm, Peru *Z. paprzyckii* Gordon
- Length equal or less than 4.00 mm 24
24. Margin of elytron feebly, abruptly explanate, in side view slightly sinuate 25
- Margin of elytron broadly, gradually explanate, in side view strongly sinuate 26
25. Male genitalia with basal lobe longer than paramere; basal lobe wide at base *Z. roberti* n.sp.
- Male genitalia with basal lobe equal in length to paramere; basal lobe slender since the base *Z. revestita* Mulsant
26. Male genitalia with basal lobe shorter than or as long as paramere 27
- Male genitalia with basal lobe longer than paramere 28
27. Male genitalia with basal lobe equal in length to paramere; length 3.90 mm *Z. patula* Gordon
- Male genitalia with basal lobe shorter than paramere 30
28. Paramere with width base, not inflated with rounded apex *Z. serva* Gordon
- Paramere constricted at base, inflated, with curved and pointed apex *Z. dozieri* Gordon
29. Length 3.30 mm or less; male genitalia with basal lobe wide at base, concealing parameres in ventral view, gradually evenly narrowed to a bluntly rounded apex ... *Z. nigra* Gordon
- Length 3.45 mm or more; male genitalia with basal lobe narrower at base, not concealing parameres in ventral view, narrowed from middle to a bluntly rounded point *Z. similis* Gordon
30. Length 4.30 mm or more; mesosternum black, metasternum yellow ... *Z. major* Crotch
- Length less than 4.10 mm; and metasternum black 31
31. Pronotum with median basal projection black 32
- Pronotum all black except anterior margin yellow 33

32. Male genitalia with basal lobe slender, parallel-sided; parameres inflated, constricted at base and narrow at apex *Z. nigricollis* Gordon
Male genitalia with basal lobe triangular, parameres not inflated, not constricted at base 34
33. Male genitalia with basal lobe shorter than paramere, with apex rounded
..... *Z. formosa* Gordon
Male genitalia with basal lobe equal in length to paramere, with apex slightly sharp *Z. linteolata* Mulsant
34. Male genitalia with basal lobe shorter than paramere with apex rounded
..... *Z. peruviana* Gordon
Male genitalia with basal lobe equal in length to paramere with apex flattened
..... *Z. flavicollis* Gordon

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